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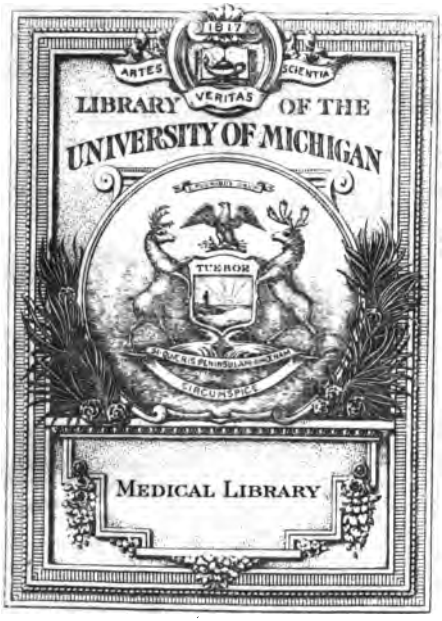
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THE

WESTERN LANCET

AND

HOSPITAL REPORTER.

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ORIGINAL COMMUNICATIONS.

ART. I.—*Cases of Irritation*—By JOHN P. HARRISON, M.D., Prof. of Materia Medica in the Medical College of Ohio.

Through the pages of this journal we attempted, on a former occasion, to draw some lines of demarcation between the two pathological states, denominated irritation and inflammation. The reader, who feels any interest in the subject, will revert to that short article, in order to refresh his mind with the points of distinction which we laid down; and, whether he agrees to the premises which we attempted to establish, or not, he will find that the following cases signally illustrate the positions taken.

The verification, or refutation, of all pathological speculations, must be made at the bed side. If our practice proves abortive, or is less successful than that prompted by other views of the nature and seat of the disease; it behooves us most carefully to review the whole of the steps by which our minds have been conducted through the symptomatology of the case to the entertainment of the pathological conceptions held by us. There are three very available means, by which we can ascertain the nature and seat of a morbid affection, to which a fourth, not so readily accessible to the majority of medical practitioners, should be added. The three first alluded to, are—1st, the symptoms; the 2d, includes the history, or ætiology; 3d, the effects of remedies. The fourth, has reference to the morbid anatomy.

When called to a case of disease, our first duty is to investigate the present phenomena; or, in other words, to inquire into the deranged sensations, deranged secretions, and deranged circulation, present. Our next subject of inquiry is into the history or ætiology of the case; whether it is a hereditary or acquired affection, and what immediate hurtful agents have acted on the patient to produce the malady. By watching assiduously the effects of remedies, we often have a clear stream of light thrown on the morbid conditions of the system. Pathological anatomy comes in, as a final test, to afford an interpretation of the symptoms seen during life. But mere post mortem appearances may exert a misleading, instead of a guiding power over the conceptions, which should occupy our minds in reference to the precise character of the morbid affection of which our patient died.

The parts found structurally disordered may not have been the original localities of the disease; and, even if primordially deranged, that derangement may have consisted essentially in a functional departure from a normal state, rather than one of a lesion of structure. Great and unremitted watchfulness are demanded on the part of the physician, that a due appreciation be given by him to the action of his remedies. The following reflections from one who has been a most successful cultivator of medical science, deserve our most attentive perusal.

Marshall Hall, in his valuable notes to Merriman's edition of Underwood on the Diseases of Children, gives us the following suggestions, which, coming from such a practical author, should not be lightly regarded.

"The diseases of children best understood, are those which arise from irritation, and principally irritation in the stomach and bowels, and the irritation of teething, and inflammation. I may observe, indeed, in this place, that of the whole number of fatal cases of disease in infancy, a great proportion occur from the inappropriate or undue application of exhausting remedies. This observation may have a salutary effect in checking the ardor of many young practitioners, who are apt to think that if they have only bled, and purged, and given calomel enough, they have done their duty; when, in fact, in subduing a former, they have excited a new disease, which they have not understood, and which has led to the fatal result."

We propose in this paper to relate cases illustrative of the above remarks.

Case 1.—Miss C., aged ten years, had an attack of general articular rheumatism, which was promptly met by the ordinary antiphlogistic measures. As the rheumatism subsided, symptoms of intestinal irritation arose, which was treated with mercurial remedies. Soon after the application, to the abdomen, of flannels wrung out of warm whisky, a general nervousness arose, which was characterized by sleeplessness and incessant jactitation. In two days after these symptoms set in, an alarming agitation of the whole muscular system of the life of relation arose. There were spasmodic cough, rolling of the head, and the eyes; the tongue was pushed out and pulled in the mouth constantly; the legs and arms were in vehement movements, up and down, and from side to side; in short, the whole body was in a state of chorea. With the full development of these phenomena, the intestinal irritation disappeared. In consultation, the patient was put on the following remedies, in conjunction—Extr. hyoscyamus gr. ss; quinine gr. j.; oxide zinc grs. ij., given every two hours. Morphine was occasionally prescribed, with assafœtida; and under this treatment the symptoms gradually abated.

Case 2.—A fine hearty boy, aged six years, the son of a medical practitioner, was seized with pneumonia, for which he was bled from the arm to the extent of eight ounces: had six leeches applied to the chest; a large blister over the anterior portion of the thorax; and took tart. antim. and calomel very freely. The immediate and more urgent symptoms of the disease subsided; still there was a quick short respiration, with incessant cough, and an augmented restlessness. The little patient was sleepless and delirious, and with difficulty could be kept in bed. After a thorough investigation of the case, it was decided, that irritation had either supplanted inflammation, or, that it assuredly predominated in the case. Accordant with this view, small doses of hyoscyamus, with camphor, in mucilage and syrup were given; and under this plan the patient entirely recovered.

Case 3.—This was the child of a medical friend; aged 12 years, of nervous temperament; who had an attack of articular rheumatism, for which she was well medicated. Pain in the cardiac region coming on with irregular pulse, a large blister was applied to the chest. When we saw her, she had not slept for several nights; delirium was present; pulse intermittent; bowels open; spine tender. It

was proposed in the consultation to blister the spine: this was objected to, and a narcotic plan insisted on. By giving free doses of morphine, till she took more than a grain during the night, a somewhat disturbed sleep took place. The narcotic indication was carried out by the persistent exhibition of the morphine, and accompanied with mild nourishment, the patient began to improve. Finding it necessary to open her bowels, a cathartic was administered, which operated with unexpected severity. The intestinal irritation induced a renewal of the alarming symptoms of extreme restlessness, insomnia, and disturbed cardiac action. The morphine was again exhibited, but to a larger extent, so that two grains were, in divided portions of a quarter of a grain repeated every two hours, given in twelve hours. Symptoms of decided temulent derangement of the brain arose in the group of morbid phenomena present in this case, during the recurrence of the attack.

In this interesting case there were most palpable demonstrations, succeeding the rheumatic symptoms, of irregularity in the action of the heart, high cerebral disturbance, with spinal irritation. This last phenomenon, we consider, but a cutaneous neuralgia; and is falsely interpreted, when assumed as a proof, that there exists any inflammation or even irritation of the spinal marrow, or of its investments.

The narcotic treatment proved eminently successful; confirming the views which we entertained of the pathology of the case, when we first saw the patient.

Case 4.—This was a young delicate married woman, who was nursing her first child. Having had no catamenial effusion since the birth of the child, pregnancy was not suspected. Indomitable vomiting, with obstinate constipation, were the symptoms present. Gastritis was suspected. She was bled, generally and locally; a large blister applied to the epigastrium; injections administered; and as the vomiting and constipation persisted, a pretty severe ptyalism was induced by the repeated administration of small doses of calomel. She gradually emaciated; little or no nutrition being imparted to the system, from her inability to keep even gum arabic mucilage or milk and water on the stomach, to any extent, adequate to this end. After continuing three weeks in this state, with very sparse evacuations from the bowels, and little abatement of the gastric distress, we were requested to see her. Upon examination per vaginam, we ascertained that there was an evident enlargement of the uterus. Lime water

and fresh milk, in equal parts, were ordered in spoonful doses, every three hours; a table spoonful of oil of turpentine in the yolks of eggs and gruel, was injected through a flexible tube high up the rectum twice a day, till some slight alvine discharges were procured. After this three grains of the compound extract of colocynth, and one grain of extract of hyoscyamus, were given, in a pill, every six hours, till the bowels were duly acted on. Under this course of treatment, with beef tea, alternated with arrow root well spiced, the patient slowly recovered, and in seven months afterwards was delivered of a living child.

This patient, in about two years, proved pregnant again, and passed through a similar ordeal of vomiting and constipation, but as the case was understood, the medication inflicted on her partook more of the *le medicine expectante*, than the heroic. In her fourth pregnancy, she sunk under the protracted vomiting and constipation, which no remedial measures that were employed in the case seemed capable of reaching.

A few observations, having the above cases for their basis, will now be submitted. First, the errors in our modes of removing morbid states, may be divided into those of excessive medication, defective activity of treatment, and misapplied measures of relief.

The most serious errors of excessive medication are often committed by the earnest and decided practitioner of medicine. It is not a mere polypharmacy—not a mere accumulation in the prescription of separate articles of the materia medica, that is to be deprecated by the judicious physician, but a too exclusive mode of practice of the depletory kind. The evacuant indication of cure is a most important and essential point in the consideration of the true mode of subverting morbid action. But to seize upon this indication with a rash decision of judgment, and to pursue it with an impetuous eagerness, are calculated to do much evil in the practice of medicine. Disease may be acute, or chronic, in relation to time; or it may be curable, or incurable, in relation to medical interference; or it may be local, or constitutional in relation to the organism. Again, disease may in its nature be self-limited, or unlimited, as regards the capability of the system in its arrest. Or, finally, it may consist in irritation, inflammation, or in fever.

Now, in studying the appearances of disease, and in adapting remedies to its removal or mitigation, we should advert to the cha-

racter of the malady under our care, in respect to its duration, its curability, its extent, and its self-limited nature. But the physician, in making a fit application of his means of cure, must especially study the character of the complaint in the relations it sustains to the nervous, vascular and secretory systems. Irritation, if mistaken for inflammation, and treated by bloodletting, purgatives, tart. emetic, and blisters, may as rapidly destroy life, as an uncontrolled veritable inflammation. Fever involves the general nervous and vascular systems; but, superadded to the aberrations of function witnessed in these systems, the great secretory organs of the body are found, invariably, to a greater or less extent, implicated in attacks of idiopathic fever.

Excessive medication of the evacuant kind may convert an inflammation into an irritation. The vast importance of preserving a prudent reserve in our interference in chronic diseases, requires no special comment. An incurable disease may be mitigated, but to attempt its sudden arrest by a violent medication, would argue neither wisdom nor humanity. In a self-limited disease, like scarlet fever, the urgent fulfilment of the depletory indication, has, we verily believe, inflicted more harm than would have resulted under the total non-interference plan.

In the diseases of females and children the circumspect practitioner will ever keep an eye upon the abnormal conditions of the nervous system. The state of the brain so closely simulative of real hydrocephalus, termed, respectively by different authors, erethism, irritation, hydrencephaloid, and nervous shock, which is so apt to arise in irritable patients, especially in children, after free and copious purgation, or the liberal abstraction of blood, demands a close study on the part of every medical man, who wishes to practice with credit to himself, honor to the profession, and safety to his patients. Abercrombie, Gooch, and Hall, have ably illustrated this affection, and forcibly depicted the evils consequent on an adherence to the evacuant mode of treatment.

Defective activity of treatment is not a common fault among American physicians. A super-medication, consisting of the herculean or heroic measures, pushed with a too bold, and often merciless hand; this is the rock on which the lives, we fear, of many are wrecked. Let it not be thought that we favor an imbecile mode of treating severe and dangerous attacks of inflammatory disease. Acute

seizures of an inflammatory kind must be met and subdued by a severity of medical procedure proportionable to the height of the vascular action, and the importance of the organ attacked. The lancet, with local bleeding, tart. emetic in free doses, purging, mercury, and blisters, are, in such attacks, our main, almost exclusive reliance. But whilst combatting inflammation, let us not forget the necessity of soothing nervous irritation after the more urgent symptoms of the original malady are repressed by the hand of depletion.

Misapplied measures of relief may be made to an irritation for an inflammation; or a latent inflammation may be overlooked, and debility prescribed for to the irreparable undoing of the patient. Much may be said, and said with a positiveness, on the liability of mistaking and treating an inflammation of a subdued form, for a mere irritation. Let the physician advert carefully to the following points, already stated; first, what is the precise history of the case, not only in relation to the causation of the complaint, but in reference to the hereditary or acquired predisposition of the patient, his habits, etc.; second, what do the present symptoms announce? third, what have been the effects of the remedies? has the aggregated train of phenomena come on after bloodletting and purging; or have these measures mitigated the symptoms? And let the idiosyncrasy, as far as ascertainable, be taken into account, with the age, sex, temperament, and constitutional tendencies of the patient, ere, in doubtful cases, a too confident diagnosis is established.

ART. II.—*Thoughts on Private Establishments for the Insane*—By THOS. D. MITCHELL, M.D., Professor, etc., in the Medical Department of Transylvania University.

The object of this paper is to call the public attention, to the necessity of erecting and patronizing private retreats for the cure of insanity. We have reached a point in the history of this melancholy subject, of the deepest interest; and one that presents an irresistible argument in favor of the particular class of institutions for which we are now to contend. We allude to the position, established by ample experience, that no form of disease is more certainly curable, than

insanity of less than one year's duration; and we are hence urged to make this appeal to the common sense of the medical profession, and the community in general.

As bearing obviously upon this topic, we quote from the third annual report of the Superintendent of the Lunatic Asylum of Ohio.

"In connexion with the subject, we cannot refrain from inviting the attention of the christian philanthropist to the necessities which exist, for a corporate or private asylum for the insane, in the immense region watered by the navigable rivers flowing south and west. According to our computation upon the census returns for 1840, there are in the states of Alabama, Mississippi, Louisiana, Tennessee, Kentucky, Ohio, Indiana, Illinois, Missouri, Arkansas, and the territories Wisconsin and Iowa, *two thousand one hundred and sixty-seven* insane persons, exclusive of idiots and imbeciles; and with the exception of three State institutions in Kentucky, Tennessee, and Ohio, which can, unitedly, admit but *three hundred and eighty* persons, we are not aware of any suitable accommodations, public or private, for the medical and moral treatment of the insane, in all this enterprising, wealthy, and extensive region of country."

In a letter recently received from the same source, the like sentiments are forcibly reiterated; and we are free to confess, that our friend of the Ohio Asylum has given the impulse which prompts the writer, on the present occasion. *

It must be born in mind, that more than a year has elapsed since the remarks we have quoted, were first given to the public. In the interval, the ordinary causes of insanity that regularly give birth to an annual increase of maniacs, must have very much augmented the number stated by Dr. Awl. But if to these we add those extraordinary agencies that have overspread certain portions of our country,

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* It may be well to correct an error in the February number of the Lancet, on the origin of the Ohio Asylum. "Its germ," says the Directors, "was planted by the Medical Convention of Ohio, at its first session in January 1835," (not 1838.) The writer of this paper thinks it an honor to have been instrumental in that result. He was a member of the Convention; delivered an address, by request, before the Legislature, and citizens of Columbus, on Lunatic Asylums; and was also on the committee appointed by the Convention, whose report, in form of a memorial, led to the passage of the act, forthwith, that laid the foundation of the present Asylum.

and exerted a deleterious influence, we cannot doubt that there are, at this moment, in the vast territory referred to, not less than twenty-five hundred insane persons. Mormonism, Millerism, Mesmerism, and unexampled pecuniary embarrassments have contributed largely to the frightful result.

While the facts assure us of this accumulation of the evil, we have to lament, that the means of mitigation and cure have not been augmented. Nay, further; we have the most valid reasons for believing, that if all the States and Territories above named, were to do as much for the insane, as has been effected by Kentucky, Tennessee, and Ohio, a mighty work would yet have to be achieved, or many hundreds who are now deranged, would be consigned to perpetual insanity. Allowing each to provide for one hundred and thirty patients, the aggregate would be little over fifteen hundred persons; and, by consequence, at least one thousand would be abandoned to a fate, from the thought of which humanity recoils.

As the facts are, and as the prospects for many years seems to be, instead of one thousand maniacs unprovided for, the Valley of the Mississippi could show twice that number who are beyond the reach of help and hope.

We have not the means, by which to make a nice estimate of the sum total of *poor* persons who are insane in the regions of country already referred to; but we feel assured, that we do not risk a departure from truth in affirming, that all the past and future efforts of our State legislatures for ten years to come, will not cover even this ground. And we venture to predict, that so soon as the public mind is fully awake on this subject, it will be found not only expedient, but necessary, to direct the resources of the State Asylums to the recovery of the insane poor, *only*. A strict regard to economy, irrespective of the claims of humanity, must, if we mistake not, force this result.

Thirty years ago, in a small volume entitled the *Philanthropist*, we called attention to the necessity of establishments, especially, for the insane poor; because it was our abiding conviction, that if these were taken care of, the friends of the wealthy insane would devise suitable methods for their management. But, we were then in the infancy of correct views on this great subject, and the number of insane persons was supposed to be inconsiderable. In the lapse of years the theme has swollen to dimensions never dreamt of, and in

our more recent movements we have had too little regard to the welfare of the poor, and perhaps have misjudged in respect of the real good of the more affluent victims of insanity.

We cannot believe, that the insane poor will ever again be doomed, in the early stage of derangement, to confinement in gloomy cells and prisons, as in former times. Enlightened public sentiment will not tolerate the idea; and the forecast of our financiers will see to it, that this class of subjects, for whose support the State must be taxed, shall be provided for in the most economical manner; and to accomplish this end, it will soon be found necessary to appropriate the State Asylums exclusively to their use.

But whether this anticipation shall ever be realized, or no, the actual history of the insane, at this time, demands special efforts of a private nature. For, however much we may object to distinctions in society, it is not for us to attempt their extinction; and their very existence is an argument in favor of private establishments, of various grades, adapted to the diversified conditions of society. Thus it was found absolutely needful, to institute an establishment for the insane members of the society of Friends, and public sentiment has sanctioned the course pursued by that respected sect, both in Great Britain and the United States of America.

Suppose that a good private Asylum could be located in Kentucky, Tennessee, and Ohio, each to hold fifty patients, in affluent circumstances, and of course, well able to pay for their support and treatment, and that these were detached from the establishments now in operation in those States: it follows, that room would thus be provided for so many additional poor patients, who might, otherwise, be totally neglected.

We learn from the last report of the Ohio Lunatic Asylum, that many applications for admission, were rejected during the past year, of which ten were from Kentucky, and these most probably in comfortable circumstances. This, in connection with other facts, renders it more than probable, that an Asylum located in a desirable spot in Kentucky, conducted by a competent and responsible individual, and calculated for fifty patients, could be filled with persons of great respectability, and able to pay most liberally in a very few months. Let such an Asylum be opened, exclusively, for patients who have not been one year, the subjects of mental derangement, and give extensive currency to this feature in the outset, and with proper management, its prosperity will be perpetuated.

We have seen that the cure of recent cases, under the modern regimen, is speedy and certain, so that from 80 to 90 in 100 are restored. With this result in the private Asylum now contemplated, confinement within its walls would be limited to a few months; and then, the total cost, even at high prices for boarding and management, would be inconsiderable in the estimation of the wealthy. There are families in affluent circumstances, (and not a few,) whose patronage, at five or even ten dollars per week, could be secured for such an institution, in preference to mixed establishments at far lower rates.

We are exceedingly anxious to witness the actual operation of a private Asylum for wealthy patients, conducted on the present enlightened plan, and restricted to cases of insanity of recent date. We desire to see the experiment made, because we are confident of its success, and because of its ulterior bearing upon the cause. Its triumphant operations would prove, most conclusively, that the moral management of the insane had no respect to person or character, as such, but treated the high and the low, the rich and the poor, alike, and with exclusive reference to mental restoration. The success of one such Asylum would prepare the way for another, until the number would be so increased, as to insure the relinquishment of all the public institutions, for the accommodation of the poor.

I am fully aware of the objections formerly raised against private Asylums in Europe, and of the horrid cruelties detected in them. But every one knows, that a mighty revolution has been effected in the treatment of insanity, and that public sentiment has reprobated every form and grade of cruelty. For the instruction of the present and after ages, it has been recorded by the superintendant of the Ohio Asylum, that a strait jacket does not belong to the institution, and that chains do not enter its vocabulary. And he assures the public, that while engaged in writing his last report, although surrounded by one hundred and forty-eight insane persons, not one of them was under any other restraint than the walls of the edifice; adding further, that such was the state of the case, for weeks together. Associated with this record, is the gratifying statement, that the cures of recent cases exceeded 86 per cent.

A private Asylum, therefore, to keep pace with the public institutions, of the first grade, must establish a reputation for perpetual displays of kindness, and this being accomplished on a sound basis, success must follow, and, as a consequence, its patronage must be

constant. Receiving none but recent cases, and managing these by the law of christian kindness, its patients would be only transient inmates, whose speedy restoration would make room for other cases of similar character. The tendency would be to lessen the number of incurable patients, and, by multiplying these establishments, the aggregate of this class would be, at length, very sensibly diminished.

Far be it from us to urge upon any man, the attempt to establish a private Asylum, as a mere pecuniary speculation. He, whose bosom is not touched by higher and nobler sympathies, is destitute of the essential characteristics of a superintendent of such an institution. But, it is well to know that the labors of a faithful conductor of a private Asylum, would be most liberally rewarded, while at the same time, he would enjoy the unspeakable satisfaction of doing more good to society, than could be accomplished by the professional services of a single physician, in any other relations.

Reader, of whatever name or calling, have you no interest in this matter? have you no relative or much-loved friend, who, though once the pride and joy of the circle in which he moved, is now a blank in society, because of the sad change that has passed upon his mind? Has the dazzling lustre of his gold become dim, as the beauteous face of nature, when the shades of night rest upon her bosom; has the brilliancy of the diamond vanished, and is the soul, whose corruscations once animated all minds within their range, been shrouded in the pall of a total eclipse? and are you assured of immunity from such a catastrophe? Our fathers, mothers, sisters, children, yea and our very selves, may one day fall beneath the giant grasp of that unearthly spell, that, in other times, banished the maniac from the light of day, and excluded him from the brotherhood of the world.

The venerable author of the *Diseases of the Mind,* (Dr. Rush,) enjoyed, while living, the enviable reputation of being the first man in America, who did any thing, effectually, for the cure of insanity. Even prior to the severe family affliction, which, in after times, augmented the intensity of his interest in the cause, he led the way in the first institution in this country, in which maniacs were treated as immortal beings, in any proper sense; and was happily instrumental in the restoration of many of the inmates of the Pennsylvania Hospital. The writer of these remarks will never forget the impressions derived from the clinical instructions of that distinguished teacher, in the apartments allotted to the insane. For at that time, (whatever may be said of the march of mind,) it was not held to be injurious

to the victims of mental derangement, to be the subjects of clinical instruction. And it is matter of rejoicing, that the present indications, in Europe at least, make it probable, that common sense will ere long, triumph over ignorance, prejudice, and stupidity, in all lunatic establishments, that are convenient to our schools of medicine.

But when the illustrious man to whom we have referred, saw the direful calamity enter the precincts of his own family, and lay its rude hand upon his favorite son, he felt that the motives to study the diseases of the mind were vastly augmented. His sympathies were touched as they had never been before; and hence, when he came to that part of his course of lectures that treated of insanity, the big tear that stole down his furrowed cheek, told his class, that in the Hospital almost within our gaze, was an inmate deprived of reason, who was bone of his bone, and flesh of his flesh.

The time has come, for the profession of medicine to shake off its lethargic slumber, to be wide awake on this important matter, and to stand at the head of the benevolent host who are now engaged in meliorating the condition of mankind. The liberality and kindness of physicians have been acknowledged, all the world over; and kings and emperors, great men and good men, have proclaimed our praise. Let us be stimulated by nobler and better motives than the applause that dies away on the breath, and is lost in the breeze; and impelled by a pure benevolence that is expansive as creation; let us be first, and midst, and last in the magnanimous enterprise of doing good. The mere bagatelles of the day, the various systems of jugglery and imposture, and all the evanescent delusions calculated to cheat us of time, as well as reason, may suit the common herd, whose aims have no loftier aspirations. But here is a topic of inexpressibly glorious, yet melancholy reality, involving the happiness of a vast community, and at the same time exhibiting a remedy so wonderfully recuperative, that it might be regarded fabulous, if actual experience had not proclaimed its reiterated achievements, with a trumpet blast that has hushed even scepticism to silence.

We cannot dismiss this subject, without calling the attention of the charitable and humane, who are in circumstances of affluence, to another project for the special benefit of the insane poor. In the *Philanthropist* already referred to, we endeavored to impress upon our readers, the importance of *discriminating* benevolence, in all the institutions of kindness, then in operation. But we feel, that

this idea is yet more important in the treatment of insanity. Not a few of its victims have induced their unhappy condition by the most degrading vices, among which we name *intemperance*, as entitled to a prominent place. On the other hand, there are many whose mental derangement has been the result of calamities, evidently providential in their nature, and these, too, often associated with sad reverses in pecuniary affairs. Some of them were once rich, and courted for their wealth; but, alas! the vicissitudes of fortune have crossed their path, and insanity finds them in the humiliating vale of poverty.

It has become somewhat fashionable for rich men, to endow Orphan Asylums, and Colleges, and Churches; and we rejoice to think that this fashion is on the increase. We desire, however, to see the objects of such munificence extended, so far, at least, as to embrace the necessities of the insane poor, who, in other days, saw better times, and who doubtless have contributed often to the calls of suffering humanity. Does any man inquire, how he may safely and profitably dispose, by will, of twenty, thirty, or fifty thousand dollars of his estate, or of twice the whole amount; and is he anxious to perpetuate his memory, by association with such an act? I point him to the claims of that class of insane persons, whose cause I have feebly advocated. Let him make provision, for all future time, for the accommodation and treatment of fifty or one hundred persons of this description; and he will not only perform an act that will be soothing and consolatory in his dying hour, but he will stimulate others to like deeds of charity. Who asks for higher honor,—for more glorious fame? If the gift of a cup of cold water, under the promptings of a pure and heaven-directed benevolence, loses not its reward, who can doubt that charity of a more expansive range, moved by the same impulse, shall be had in everlasting remembrance?

ART. III.—*Case of Artificial Lower Lip*—By R. D. MUSSEY, M.D., Professor of Surgery in the Medical College of Ohio, and Surgeon of the Commercial Hospital, Cincinnati.

John Barnes, æt. 30, a laborer, consulted me early in September, 1842, for an enlargement and ulceration of the lower lip, which, he

said, had been of one year's standing. The whole of the lip was in a state of disease, about four times its natural volume, much indurated, of a purple color, with an ulcer half an inch in diameter at the part where the induration commenced, and exhiting the irregular margin and surface belonging to ordinary cancer of the lip.

I advised an operation, to which he consented, and immediately put himself, by my direction, upon a farinaceous diet, as a preparative for that measure. On the 27th of September he was admitted into the Commercial Hospital, and on the 1st of October, submitted to the operation. This I performed by cutting away all the diseased mass, which required the incision to extend beyond the angle of the mouth, and at the median line, as low as to the point where the lining membrane of the lip is reflected upon the gums. An incision, four inches in length, was then made through the integuments, from one side of the lower jaw to the other, crossing the median line about an inch and a half behind the chin; the integuments of the chin were dissected from the jaw, for a sufficient extent to admit of being raised up to occupy the place of the lost lip, and secured in that position by adhesive strips and other dressings. The healing process went on kindly, and on the 15th of November the patient was discharged, cured. To day I saw the patient: his lip is quite sound, free from induration; enables him to close his mouth and hold his saliva perfectly, and pronounce labials very well. It is free from adhesion to the gums for an extent equal to what belongs to the natural lip, but the mouth is somewhat smaller than natural.

Cincinnati, March 20, 1843.

ART. IV.—*History of Dengue, as it made its appearance in Greene County, Ohio, during the Spring and Summer of* 1842—By JOHN DAWSON, M.D., of Jamestown, Ohio.

I will give, in the first place, a condensed account of the epidemics with which Dengue was preceeded.

Scarlatina commenced in '38, and perhaps attained its greatest prevalence during that year; but it has prevailed more or less up to the present time. This disease divided itself into the *simple* and *in-*

flammatory varieties. With the simple variety we had no trouble. The disease would run its course, and come to a favorable termination, with almost any plan of treatment. Where, however, as Sydenham says, in his old work lying before me, "nature was disturbed more, either by keeping the sick in bed, or by cordials and other needless remedies, too learnedly, and as it commonly appears, thrust in above measure, *secundum* artem, the disease," to still use his language, was "heightened, and the sick died by the over officiousness of his physician." The inflammatory variety, in most instances, appeared in its worst possible form; for, besides the anginose affection, which of itself was generally enough to take life, the high degree of excitement in the heart and arteries seldom failed to light up inflammations in the most important organs of the body. This form of the disease required a bold and vigorous treatment. Blood-letting, and the cold bath, or dash, were the only means entitled to confidence. When, however, the disease was ushered in by vomiting and purging, it invariably terminated fatally; and that, too, in from one to three days. A few cases appeared, where an adynamic tendency supervened, after the force of the disease had given way, which terminated in gangrene of the extremities.

Pertussis commenced in '39. Uncomplicated with any thing else, it seldom required the interference of art. But it was sometimes found combined with scarlatina. This double lesion, of course, embarrassed the issue, though the cases generally recovered, after the two diseases had respectively run their course. I am inclined to the opinion that the aggregate amount of lesion ordinarily produced by these two diseases, when occurring in separate individuals, undergoes such a modification, when combined in a single individual, that the occasional malignity of scarlatina is entirely avoided. Such, at any rate, is the result of my observation.

Immediately upon the subsidence of hooping-cough, *rubeola* commenced. It attained its greatest prevalence in the winter of 1840 and '41. During the summer of 1840, the cases were in general mild, and passed off with little or no mortality. When cold weather commenced, the disease assumed a more serious aspect. Individuals laboring under any previous disturbance of the air passages, or those having a hereditary predisposition to consumption, were those in whom the disease rioted with the greatest degree of mortality. Andral says, that an irritation of the mucous membranes of the air pas-

sages is one of the pathological elements of measles. This is undoubtedly correct. Besides, it explains, not only the catarrhal symptoms invariably present, but also shows how it is that a low temperature, acting upon the surface, and giving the blood and other fluids a centripetal direction, never fails to impart an unfavorable influence upon the existing lesion.

So far as the treatment of these epidemics are concerned, we witnessed much to strengthen the belief, that every thing done, *secundum artem*, must respect the rights of "the powers that be." Any effort to dispossess the enemy, until the "constitutional term expires," will strengthen his forces and enlarge the boundaries of his empire. Hence, about all that the physician can do, is, to stand as a sentinel, carefully observing the marches of the enemy, that he may the more effectually guard and fortify the vital and important points of attack.

The above are the epidemics that preceded and accompanied Dengue. It made its advent, or was first recognized, in 1841; and it has continued, with intervals, until the present time.

History of Dengue. The name applied to this disease appears to have had its origin in Havana, and literally signifies an *affection.* Among the people the malady is called French measles, bucket fever, joint measles, etc. In the West Indies the disease originated. This took place in, or about, the year 1827. Shortly after it appeared in the United States, visiting New Orleans, Charleston, S. C., and some of the most populous towns in the southern portions of the Mississippi Valley. The steamboat Gen. Pike, in making a trip from New Orleans to Louisville, in 1828, had on board about one hundred passengers, all of whom, with a few exceptions, experienced the disease during the voyage.

Cause. The etiology of this disease has been, and is now, a matter of speculation. From the fact that it first made its appearance in the West Indies, the cause was supposed to be identical with that producing yellow fever. Dr. Osgood, of Havana, in an article on Dengue, published in the Boston Medical and Surgical Journal, No. 32, says, "the moderation of the symptoms in the generality of the subjects, I attribute to a gradual reduction of the vigor of their constitutions, by the influence upon them of the continuance of hot weather, during all the seasons of the two last years past, and beyond what has happened in former years, which influence has rendered the native inhabitants of the climate as well as strangers, liable to be af-

fected in this new way by the same *specific cause that at other times has produced the yellow fever.*" Prof. Dickson, of South Carolina, in the American Journal of Medical and Physical Sciences for November 1828, supposed Dengue to be a congener of Scarlatina. Others have suggested its probable connection with the influenza which appeared in the Western country during the winter of 1825-6. From the facts to which we have had access, during the time the disease prevailed here, we suppose the etiology to be a specific virus, *sui generis*, as much so as scarlatina, measles, small-pox, etc. Confirmatory of this position, the peculiarity of the symptoms might be submitted; such, for example, as the extreme violence of the pains in the joints, at the commencement, and the singular sensations they created; the roseolar eruption and general soreness of the whole surface of the body. Now, while these may be regarded as pathognomonic, there are others which, when taken in connection, go far towards placing the malady upon the footing of a separate and distinct disease.

Whatever may be the nature and affinities of the remote cause, it propagates itself very much like scarlatina, and our other common epidemics. When it broke out in the steamboat Gen. Pike, ascending the Ohio river, in 1828, but few of the passengers or crew escaped its influence. Such, also, is its history in the West Indies. The inhabitants of a whole town would frequently become simultaneously affected. Those, however, who had suffered from attacks of yellow fever were partially exempt. And it was this circumstance that induced the belief that yellow fever and Dengue were identical in cause.

When the disorder first made its appearance here, it seemed strictly amenable to the laws of contagion. Whole families and neighborhoods became simultaneously affected. Prevailing, however, for a while, its attacks became less general. Two or three of a family would sometimes suffer, while the balance would enjoy entire exemption. Sporodically, too, cases have occurred here, as well as in the West Indies in 1828. But this takes place, frequently, in hooping-cough and measles, when they are epidemic, and might be insisted upon, with the same propriety, against the contagious character of these diseases, as against that of Dengue.

I noticed nothing to show that this disease exercised any preference, in regard to age or sex; all appeared to suffer in about the same

proportion. Nor did the specific virus of the epidemics, with which it was immediately preceded, modify, in any way, or destroy, the susceptibility of the system to the influence of the cause. Persons who had previously had scarlet fever, or measles, readily contracted Dengue. When the disease appeared in the West Indies, it was thought that the subjects of yellow fever enjoyed partial exemption: those, at any rate, who had been severely affected with yellow fever, experienced no attacks of Dengue, during the same season.

Liability to this disease is no greater at one season of the year than another; for it prevails with equal facility, summer and winter. Season seems to exert some influence. The *course* is shorter in summer than winter; besides, there is an evident mitigation of the symptoms in warm weather, and less danger of complication with other prevailing disorders.

Symptoms. Most cases are ushered in with the symptoms common to fever, such as headache, lassitude, general aching of the bones, loss of appetite, and chill. This was not, however, invariably the case. Some manifested their first indisposition by a fixed pain in some one of the joints. The tongue is usually coated over with a white fur, which, in a day or two, disappears, and is succeeded by a covering of a brown color, which, in severe cases, becomes entirely black. Through these coats there is a very striking protrusion of the papilla, and they seem to be in a state of hypertrophy; the sides and apex generally red; little or no alteration in the form of the tongue; taste depraved, and breath fetid. The general surface, in the commencement, is dry and hot, and usually on the third or fourth day a roseolar eruption makes its appearance over the whole body. This wore so much the appearance of scarlatina, that some practitioners pronounced it to be that disease; and the appearance of almost every person, a few days after the fever had gone off, being marked by a continuous rash over the face, body, and extremities, seemed to favor this opinion very much. (Dumaresq.) The eruption had a different livery in the island of St. Christopher. According to the observations of Mr. Squaer, a British army surgeon, "it was sometimes elevated into large wheals," and had more of the appearance of the morbillous eruption. In Charleston, S. C., Prof. Dickson says, the disease was sometimes attended with a sort of rash, or miliary eruption, and in several adults, with a thick crop of pimples; but in general, an abundant eruption consisting of irregularly shaped

red patches, elevated above the surface; this he regarded as an essential part of the disorder. Among the peculiar phenomena of this malady, are pains, mostly resembling those produced by acute rheumatism. The head, arms, loins, and along the course of the larger nerves, the pain occasionally operates with great violence. The articulations, however, sustain the greatest shock. Here the pain is sometimes so great, that patients say it is worse than that produced by luxated bones. The intensity of the pains are such as to occasion tears with loud sobs and screams. In a stout young man, this pain, in the very ends of his fingers, was such that he cried bitterly. (Dickson.) Ease can seldom be obtained in any position of the body, the patient tossing himself from side to side to obtain a moment's rest from his suffering. Occasionally, swelling of the joints supervene, together with the general soreness of the whole system, which renders the patient incapable of any degree of muscular motion. This takes place after the phlogose condition of the system has, in a measure, passed off, and is accompanied with a copious perspiration.

The fever attending this complaint is of the inflammatory character, with little evidence of irritation or exhaustion during the first part of its course. But in protracted cases, where the pain in the joints do not subside at the usual time, there is a typhoid fever that follows, which is exceedingly troublesome to manage. The *pulse*, as might be supposed, corresponds to the grade of the fever. At first it is full and hard, and beats about 100 to the minute. As the disease progresses the pulse increases in frequency, and loses its force. The functions of the alimentary canal are primarily deranged from the commencement. This falls with greatest force upon the stomach; nausea, irritability, and a pain resembling that in the joints, are the usual attendants, as well as intolerance to the slightest pressure on the epigastrium.

We are aware, now, that it can seldom be said that any particular symptoms of disease are truly pathognomonic; but the *kind* and character of the symptom are frequently so: it is the particular *combination* of symptoms, and the influence of one symptom in inducing and modifying others, that are characteristic of particular diseases. (M. Hall.) To sum up, therefore, we might say, that the symptoms mostly entitled to the character of pathognomonic in Dengue, are—

1. The arthropathic affection, the severe pains in the joints at the commencement and during the whole course of the malady.

2. The character of the eruption.

3. The intolerable soreness of the muscular system.

Diagnosis. Occasionally, when the complaint first made its appearance, it was confounded with either scarlet fever, or measles. This occurred in consequence of the variety of morbid shades put on by the eruption. Prevailing, however, for a while, its distinctions become more apparent, and better understood. From scarlatina and measles, it can be distinguished by the anginose affection universally present in the former, in some grade or other; and in the latter, the catarrhal symptoms—coryza, sneezing, hoarse and dry cough, inflamed and watery eyes. These will seldom fail to make out a correct diagnosis. The principal distinguishing circumstances between this disorder and acute rheumatism, to which it has been likened, are, the *kind* of pain in the articulations in Dengue; the eruption on the skin in all well developed cases; its prevalence during all seasons of the year, and the manner in which it is propagated; whereas acute rheumatism is characterized by no eruption; is generally the result of atmospheric inclemency, or vicissitudes, causing a sudden suppression of the cutaneous exhalation; and never prevails with any of the evidences of contagion.

Prognosis. The mortality of this disease is by no means commensurate with the amount of suffering ordinarily endured. But few cases here terminated fatally, notwithstanding the prevalence to which the malady attained. Similar are the reports made during the years 1828-9. Dr. Osgood, of Havana, says, "the disease has not proved fatal, except to a few among the strangers, in whom the sweating stage was not easily induced, or was suddenly checked by exposure to cold air."

Out of 2500 men, who were treated in the military hospitals of Havana, not one died. Distressed, however, to a very considerable extent, are those who have been the subjects of the disease, with arthropathic affections during convalescence; and these sometimes are so persistent, that for months together they resist all remedies addressed for their relief. Declension of the febrile orgasm, followed by *copious perspiration*, and loaded urine, together with subsidence of the articular distress, may, in general, be looked upon as the harbingers of approaching convalescence. Should these favorable indi-

cations not make their appearance, disordered swelled joints, rheumatic pains, and in short a crippled condition of the whole system must be the ultimate issue. These *sequela* were sometimes so distressing in those cases of imperfect convalescence, that the joints felt as if fettered or anchylosed, the patient being literally unable to move one leg or foot beyond the other, only at the expense of bodily suffering. (Dumaresq.)

Treatment. Formidable as are the array of symptoms, and urgent as seem to be the indications held out for depletives of the most powerful kind, still they fail to exercise a more salutary control, than a practice decidedly mild. In many of the simple uncomplicated cases, nature was allowed to effect a cure, without the interference of art; and these would seemingly make as favorable a termination, as where means were resorted to with the greatest method. In cases of greater severity, where the action of the heart and arteries were violent, the cephalalgia intense, and the phlegmasial affection of the joints great, measures of an antiphlogistic character were in some degree of requisition, though not productive of that degree of benefit usually derived from them in other disorders of similar excitement. General blood-letting, although decidedly indicated, had to be performed with caution. One abstraction of blood in the commencement would make a favorable impression; but if often repeated, it seemed to detract from the energies of the system, without exercising any favorable influence upon the complaint; besides, it seldom failed to protract the period of convalescence. The utility of cathartics was better marked. They were not only in requsition to evacuate the bowels, and maintain the normal secretions of the mucous membranes, but they possessed more control over the stages of excitement, and the inflammatory diathesis, than repeated abstractions of blood. As depletives, jalap and cream of tartar answer the purpose very well. And in protracted cases, in which there was evidence of either functional or structural derangement of the mucous membrane of the alimentary canal, which was frequently the case, the hydrargyrum cum oreta will be the best calculated to fulfil the indication. With emetics we had but little experience; and what we did observe of their effects was not decisive, one way or the other. Diaphoretics, inasmuch as the disease, when it terminated spontaneously, went off in a copious flow of sweat, were used for the purpose of trying to invite this critical evacuation, and hasten the disease to a close.

For this purpose we used an infusion of the eupatorium perfoliatum; and when an anodyne was necessary, the pulvis doveri. The *local* treatment seemed to suggest the necessity of cupping and blistering. But the pains were so general in all the joints, that no good could have been derived from them, without counter-irritation of the entire surface. Accordingly the local treatment was confined to the use of fomentations, and anodyne liniments.

With the above means the disease may be conducted to a favorable issue. But I have no evidence that its course can be abridged, or that it can be suspended at any period whatever. And although it may not be strictly an "opprobrium medicorum," it, nevertheless, manifests the same indifference to remedial efforts, that are usually seen in diseases of the skin.

The principal circumstances in regard to this malady, may now be summed up in the following propositions:—

1. The appearance of the disease here was preceded with measles, hooping-cough, and scarlatina.

2. The cause appears to be a specific virus, capable of propagating itself according to the laws of contagion.

3. Although productive of almost unparalleled distress, still the mortality is inconsiderable.

4. The symptoms most pathognomonic, are, pain in the articulations, soreness of the general surface, and eruptions on the skin.

5. The treatment is more palliative than curative.

ART. V.—*Case of Cephalotomy, communicated with remarks*—by JOHN BARNES, M.D., of Cincinnati, formerly Professor of Midwifery in Jefferson Medical College, Philadelphia.

The Philadelphia Medical Society, at its session of 1815-16, resolved to publish a volume of Transactions, annually, and directed its Corresponding Secretaries to address a circular to the Physicians of the United States, soliciting communications. Although the design of the Society was superceded by the establishment of the Philadelphia Journal of the Medical and Physical Sciences, edited by Prof. Chapman, then President of the Society, yet, as the Corres-

ponding Secretaries had executed their duty of issuing a circular, several communications were received. Among them was the following one, which I send you for publication, at this late period, as it has never, to my knowledge, been published; and as it affords an opportunity of presenting some remarks on what I conceive to be the improper course of practice adopted in the case. The communication is presented entire, with the exception of the name of the practitioner who officiated, which I do not feel at liberty to make public, without his assent, which would be difficult to obtain at this distance of time and place.

To DOCTORS BARNES & WOLLENS,
Corresponding Secretaries of the Phila. Med. Society.

Gentlemen—If the following case is of sufficient importance to deserve a place in your intended volume of Transactions, it is at your service. The only circumstance that disquiets the recorder, is, that the work may possibly be impaired by its insertion.

On the 23d of July, 1810, I was sent for to visit Mrs. ——, in the 22d year of her age, of a sanguineous temperament and in the ninth month of her first pregnancy.

She had been in labor three or four days, and during the whole time suffered severe pain in the loins and inguina, and at particular intervals, excruciating paroxysms. I found her much depressed in spirits, face flushed, eyes swollen from want of rest, pulse weak and frequent, and abdomen exceedingly distended. Upon examination per vaginam, discovered no presentation. In consideration of the patients debility, prescribed cordials, and an anodyne at night.

24th. Slept none last night; pains increase; fœtus no further advanced, to appearance; constant desire to urinate. Continued the cordials and anodyne.

25th. To-day, perceived the descent of the fœtus; pains very violent; strength prostrated; no sleep; cordials continued.

26th. Presentation natural; discovered the anterior fontanelle; head tightly wedged in the inferior strait; pushed it up, endeavoring to adapt it more advantageously, but without effect. I then introduced the forceps, but from the narrowness of the strait, was unable to draw the head lower than it had been propelled by nature. All this day a copious hæmorrhage.

Under these circumstances, and in consideration of the strength

of the patient, which was almost exhausted, I determined to perforate the cranium and evacuate the brain, consoled by the reflection, that it is better to sacrifice the child than injure the mother; convinced, that if speedy relief were not afforded, both must inevitably fall victims to the delay.

Unprovided with the instrument necessary for the operation, and being six miles from town, another difficulty presented itself, and the case would admit of no postponement. Recollecting a substitute mentioned by Dr. James, I procured a spoon, and having filed the handle to the proper form, perforated the anterior fontanelle and evacuated the contents of the cranium. Within two hours, after one or two severe pains, the patient was delivered, standing on the floor, supported by assistants. She was then put in bed, and sixty drops tint. opii administered.

Here is a case of labor, lingering and difficult in the extreme, of from six to seven days continuance; the parts necessarily much contused and lacerated; the patient exhausted by fatigue and loss of blood, and supplicating death, the comfort of the afflicted, to rid her of her sufferings.

In this state of things, what could have been the expected result? death—or, at least, a severe and tedious puerperal affection. But, "mirabile dictu," she slept well that night; had no fever next day, except a little excitement, a natural consequence of irritation; and in the short space of six days was walking about her chamber, well in every respect but for debility and excessive soreness. The patient was five feet five inches high, well proportioned, and in every respect, to appearance, perfectly formed.

I regret that the premature interment of the child would not allow me to ascertain its dimensions; but I am positive that it exceeded the usual size by at least one half or two thirds.

It is not my design to make any remarks on this case; I will leave that to more able hands; but does it not fully prove that venesection, as a prophylactic and cure for puerperal fever, unattended by extraordinary circumstances, is almost indispensible?"

Your's, etc. * * * *

Every practitioner of midwifery, of extensive experience, will unite with me, I think, in opinion, that, with the exception of the practice pursued in the above case, it presents nothing essentially different from *protracted first cases* of parturition, which are ordi-

narily met with—that the *destruction of the infant* was an act of *over officiousness* on the part of the practitioner; not justified by the exigencies of the case; and that, had the operation of cephalotomy not been performed, the unaided parturient efforts of the system would have been amply competent to effect delivery, and thus the life of the infant, in all probability, have been preserved, without any additional hazard to the life of the mother.

The patient, in reality, was in labor little more than two days. The suffering experienced the first four or five days, before any descent of the head was perceptible, was only the effect of preliminary pains caused by irregular spasmodic actions of the uterus, which are frequently confounded, by the inexperienced, with genuine parturient pains. There are few accoucheurs of extensive practice, who have not met with many cases in which patients have suffered severely with these spurious pains, as they have sometimes been called; and I have seen some cases in which they continued for three or four weeks previously to the inception of regular parturient efforts.

That delivery, in this case, might have been effected by the natural unaided powers of the system, I am induced to believe from the following considerations.

1st. The presentation was natural. Although the narrator mentions feeling the anterior fontanelle, I think, from the facility of delivery subsequently to the operation, it must have been the posterior fontanelle which he met with upon examination.

2d. The head had passed through the superior strait, the most usual source of difficulty.

3d. The head was not immovably impacted, or "locked." It was susceptible of considerable movement, as the narrator assures us he "pushed it up," with the view, but without effect, "to adapt it more advantageously."

4th, There was ample space, in the inferior strait, to apply the forceps around the head, which is conclusive evidence that no very serious mal-formation of the pelvis existed, which is corroborated by the facility with which the shoulders and body of the infant were delivered after cephalotomy had been performed.

5th. The vital powers of the patient were but little impaired. This fact is fully established by the patient standing up when she was delivered.

6th. The soft parts of the mother were but slightly injured, as

she had recovered sufficiently, within a few days after delivery, to walk about her chamber.

The constitutional treatment was also exceptionable. The age of the patient, being in her 22d year, her sanguineous temperament, her flushed face, her swollen eyes, and country residence, all indicated venesection, instead of cordials; and I cannot but think, that the practitioner was deceived, not only in regard to the pulse itself, but in respect to the state of the system also, by what he supposed to be "a weak and frequent pulse," a temporary state of irregular arterial action having been induced by the nervous excitement of the patient.

Although I cannot, in any respect, regard this case as one to be classed with those requiring instrumental aid, yet, after the forceps had been applied and adjusted to the head of the infant, I cannot but believe that a proper degree of traction, regulated by appropriate movements, adapted to the respective axes of the passage, would have accomplished the delivery, without exposing to great risk the life of the infant, and without serious injury to the mother.

Viewed with all the candor which becomes each member of the profession, on all occasions, to extend to the practice of others, it does appear that the course pursued in this case, cannot, in any respect, receive the approbation of the profession. Had the patient been kept quiet in a recumbent position, venesection cautiously adopted, anodynes and perhaps injections administered, and sufficient time have been allowed for the parturient efforts of the system to have exerted their full influence, it cannot be doubted, but that the case would have terminated favorably, without instrumental assistance, and the infant as well as the mother been saved.

The great error, in this case, seems to have originated in mistaking the restlessness and impatience of the patient for a supposed state of exhaustion, which produced an undue apprehension and causless alarm, lest she might die undelivered, if not aided by the resources of art.

There is, perhaps, no department of the science of medicine, in which more mischief is done by *over-officiousness*, than in the practice of midwifery.

The unaided powers of the female system, in overcoming parturient difficulties, are, in many instances, truly astonishing; and no inconsiderable tact and sound judgment are required to enable the

practitioner to form a proper estimate of all the important circumstances involved in a complicated case, to enable him to decide correctly, whether or not its existing exigencies demand a resort to the ultimate resources of the obstetrical art. These resources, both instrumental and otherwise, we know are in many cases essentially requisite for the preservation of both the mother and the infant; but we also know, that they are oftentimes resorted to unnecessarily, and applied injudiciously; and that, unfortunately for the welfare of society, too many persons enter upon the practice of this department of the medical profession, unqualified to execute its arduous and complex duties with fidelity and safety to the community.

ART. VI.—*Closing remarks of an Introductory Lecture, delivered in November,* 1842, *at the commencement of the annual Course of Lectures, in the Medical College of Ohio at Cincinnati,*—by R. D. MUSSEY, M.D., Professor of Surgery in the College.

If, on this occasion, I should pass, unnoticed, the visitation of Providence, which, within a few months, has removed from this world, a gentleman who, two years ago, was a member of our Medical Faculty, I should do violence to my own feelings, and injustice to this institution.

Dr. DANIEL OLIVER, in the fifty-sixth year of his age, died last June, at Cambridge, Mass., of a malignant disease in his throat, which had made rapid progress, having existed but a few months.

This gentleman was the son of a learned clergyman of the Episcopal Church in Massachusetts. At an early age he showed a fondness for study and reflection, and at the age of twenty-one, was graduated at Harvard University, near Boston. He was regarded as one of the first scholars of his class in college, a class of uncommon talent; and had a high part assigned him at his graduation. He studied medicine with Dr. B. L. Oliver, his uncle, a gentleman of a highly philosophical mind, and great professional attainment. He attended Medical Lectures at the Boston School; and completed his medical education, and received an M.D. at the University of Pennsylvania, while that remarkable fraternity of great men, Wistar, Phy-

sick, Rush, Dorsey, and Barton, were the teachers. After practicing physic a few years near Boston, Dr. Oliver was elected to the chair of Theory and Practice of Physic, and Materia Medica, in the Medical Institution at Dartmouth College, New Hampshire. That place he occupied as teacher for seventeen years. During his residence at the College, he was made Professor of Intellectual Philosophy, and gave, during the summer months, courses of instruction, by lectures, to the college students, which were highly appreciated by the most intelligent part of his audience.

In the summer of 1840, he was appointed to the chair of Materia Medica in the Medical College of Ohio; and gave the succeeding annual course of lectures in that department in this institution. During the lecture term, his health was feeble, and on his return to Massachusetts, in March, he suffered greatly from exposure to cold, in crossing the mountains; this exposure probably laid the foundation of the disease which terminated his life more than a year afterwards.

Dr. Oliver was no ordinary man. His very physiognomy indicated a lofty mind. Such a mind he possessed, capable of grappling with, and mastering, the most difficult subjects; and yet so great was his modesty on all occasions, that unless urged by necessity, to show his powers, as in debate, or in some public performance, he would appear to the crowd of superficial observers to possess nothing above mediocrity.

As a classical scholar, he was excelled by few. More than twenty years ago he was jointly employed with J. Pickering, L.L.D., in preparing for the press a Greek and English Dictionary; a work which has received high commendation. With the Latin, Greek, French, German and Italian languages, he was familiar. His acquaintance with, and fondness for the Greek, are sufficiently illustrated by his reading the most distinguished works of the Greek Drama for his amusement. He had, too, a remarkable love for the mathematics; the more complicated and difficult problems in algebra were mere pastime for his mind. He had cultivated music from childhood, and was a skilful and highly tasteful performer upon the organ and piano forte. He possessed an uncommon sensibility to the beauties of nature and of the fine arts; and he had a keen-edged wit, which was always so adroitly and guardedly wielded, as never to excite apprehension of danger from it, in the minds of his friends. Indeed,

his whole field of thought and feeling and amusement was such as common minds do not enter.

As a writer, Dr. Oliver excelled. He was vigorous and clear in his conceptions; tasteful and elegant in the arrangement and presentation of his thoughts; often rose to a rich and lofty elegance, and left a beautiful and classical polish upon all the labors of his fruitful mind. How often has the scholar, the intellectual philosopher, and the physician, listened with breathless rapture to the effusions of his genius! In all his public performances, he discussed his topics with such ability, as seldom to leave his auditors disposed to dissent from his conclusions.

But few of his compositions have been brought before the public. An introductory lecture to a course of instruction in mental philosophy, was universally admired, and drew the following remark from a gentleman of the highest eminence: "That performance would do honor to any man, in any country."

A work on Physiology, by Dr. Oliver, has passed through two editions, and it is not reckoning it too high to place it first among similar works in our language. He had made considerable progress in a work on Pathology, which, had he lived to complete it, would have done honor to the present age.

As a teacher of medicine, he was clear, impressive, and always popular with the more intelligent members of his classes.

As a practitioner of medicine, vigorous, discriminating, and full of resource—at the same time kind and sympathetic to his patients.

As a man, he was honorable and highminded, abhorring equally every mean and dishonest thing. His friendship was fast and indissoluble; this need not be told to those who have enjoyed it.

Dr. Oliver was a christian. He was brought up and died in the Episcopal Church, but always exercised a catholic spirit towards those of other persuasions. His life was that of a consistent christian, and his death was a triumphant one. During the last few months of his life, his Bible and religious friends were his companions; his glory was the cross of his Saviour; and as he drew near to the parting hour, a light, as from the heavenly world, shone upon him, and he seemed to enter the society of celestials. "What do I see," said he, "a glorious company, and a holy and heavenly light around them!" With his face lighted up, and with a joy unspeakable, the spirit left the body.

In the death of Dr. Oliver, his family has lost one of the kindest and best of husbands and fathers; the medical profession, a most learned and accomplished man; society, a perfect and polished gentleman; and the christian church, a truly devout and conscientious member.

BIBLIOGRAPHICAL NOTICES.

ART. VII.—*A System of Anatomy for the use of Students of Medicine.* By CASPAR WISTAR, M.D., late Professor of Anatomy in the University of Pennsylvania. With notes and additions, by Wm. E. Horner, M.D., Professor of Anatomy in the University of Pennsylvania. Eighth edition. Entirely remodled, and illustrated by more than two hundred engravings. By J. PANCOAST, M.D., Professor of General, Descriptive, and Surgical Anatomy in Jefferson Medical College of Philadelphia, Lecturer on Clinical Surgery at the Philadelphia Hospital, Fellow of the Philadelphia College of Physicians, etc. etc., in 2 volumes. *Philadelphia;* Thomas, Cowperthwait & Co., 1842; pp. 1160.

WISTAR'S ANATOMY is familiar to every American student. The first edition of the original work was published in 1814, since which it has passed through eight editions, and is now presented to the profession with the addition of a large amount of new matter, and in a superior style of mechanical execution. Dr. Wistar's original work was a very excellent production, and received the decided approbation of the American profession. Since that period, however, many additions to the science have been made, and the able editor, Prof. Pancoast, has availed himself of all new matter, which could render the present edition more perfect. In descriptive anatomy, especially of the bones, ligaments, muscles, blood-vessels and nerves, but few additions have been made, which is good evidence of the accuracy of the original work; but in general anatomy, especially splanchnology, the new matter is abundant and important.

The following extract from the advertisement to the eighth edi-

tion, will present a more concise and accurate summary of the improvements of the work, than we could offer.

"By comparing the present with the former editions, the reader will discover that the additions have been both numerous and important, in each division of the subject. This the publishers have been enabled to do without much increasing the size of the volumes, by substituting, for the old copper prints, a very large number of engravings on wood, of the finest description. Those which are intercalated with the text, and explained by foot notes, cannot fail to render the work more convenient and valuable as a text book, in the various schools in which it has been adopted, and at the same time make it serve as a most useful guide to the student in the study of practical anatomy. The additional illustrations have been taken mainly from Wilson's Anatomist's Vade Mecum, (London, 1842,) and partly from the English edition of Cruvielheir's Anatomy, (London, 1842,) and from the recent splendid work on General Anatomy, by F. Gerber. The present edition of Wistar, contains eight colored copperplate engravings of the blood-vessels, and upwards of two hundred and twenty engravings on wood, rendering it in this respect more richly and amply illustrated than any book of the kind that has yet been offered to the American student."

The honor, due the author for his work, has long since been awarded, and the present editor will greatly increase his well-earned reputation, by the fidelity and ability with which his task has been performed. We earnestly commend this work to the student, believing it to be the very best he can procure. For sale by Desilver and Burr, 112 Main-st.

ART. VII.—*A Lecture on Toxicology, delivered before the Class of the Medical College of Ohio, January,* 1841—by JOHN LOCKE, M.D., Professor of Chemistry and Pharmacy. Second edition; published by the Class; Cincinnati, 1843. pp. 16.

This is a lecture of great interest and value to the toxicologist, and emanating as it does from one of the very ablest chemists of our country, the antidotes pointed out may be relied on. As the lecture does not admit of analysis, we will only introduce a table of Poisons,

and their Antidotes, which has been made out by the author with great care and accuracy.

LOCKE'S TABLE OF POISONS, AND THEIR ANTIDOTES.

ACIDS. *General Antidotes.* Alkalies and Alkaline earths.

Particular Acids and their special Antidotes.

POISONS.	ANTIDOTES.
Acetic acid (vinegar.)	Magnesia, Carbonate of Potassa, Carbonate of Soda.
Arsenious acid.	Hydrated peroxide of Iron.*
Carbonic acid (choke damp.)	Fresh air, oxygen.
Muriatic acid.	Carbonate of Soda, Carbonate of Potassa, Soap.
Muriatic acid gas.	Inhale Ammonia cautiously.
Citric acid.	Carbonate of Potassa, Chalk.
Hydrocyanic acid (Prussic acid.)	Ammonia, liquid Chlorine.
Nitric acid.	Magnesia, Carbonate of Soda, Carbonate of Potassa, Chalk, Pearlashes, Soap.
Phosphoric acid.	Magnesia, Chalk.
Sulphuric acid.	Magnesia, Carbonate of Soda, Carbonate of Potassa, Chalk, Soap, Sweet Oil.†
Tartaric acid.	Carbonate of Potassa, Chalk.
Oxalic acid.	Chalk, powdered limestone.

ALKALIES. *General Antidotes.* The Acids.

Particular Alkalies and their special Antidotes.

Ammonia (liquid.)	Vinegar, lemon juice, oil.
Arseniated alkalies.	See Arsenious acid.
Caustic potassa, "Black Salts," Ley of ashes, Pearl ashes, Caustic Soda,	Vinegar, lemon juice, oils.
Antimony and its compounds.	Decoction of Bark, astringent infusions, strong Tea.
Tartar emetic.	As above.
Baryta and carb. of Baryta.	Diluted sulphuric acid.
Soluble Salts of Baryta, as muriate and nitrate of Baryta.	Soluble sulphates, as, Sulphate of Soda, Sulphate of Magnesia, "Salts."

POISONS.	ANTIDOTES.
Buckeye (Esculus Ohioensis.)	Chlorine, Iodine, or Bromine.
Chlorine (gaseous.)	Inhale ammonia cautiously.
Copper in most of its poisonous componds, as Blue Vitriol, Verdigris.	White of eggs, Iron filings.
Arsenite of Copper, Scheele's Green.	Hydrated peroxide of iron.
Digitalis purpurea, Foxglove.	Infusion of yellow bark.
Gold, nitrate of.	Sulphate of Iron, Green Copperas.
Hellebore, white and Amer.	Chlorine, Iodine, or Bromine.
Ipecac.	Chlorine, Iodine, Bromine.
Jalap.	Chlorine, Iodine, Bromine.
Jimpson weed, Datura Stramonium.	See Jalap.
Lead, and all of its poisonous compounds.	Soluble Sulphates, as Sulphate of Soda, Sulphate of Magnesia, "Salts."
Monkshood.	Chlorine, Iodine, or Bromine.
Mercury, Corrosive sublimate.	White of eggs, wheat flour paste not boiled.
Nitrate of Silver (lunar caustic.)	Common salt in solution.
Nux Vomica.	Chlorine, Iodine, or Bromine.
Opium and its proximates.	Infusion of galls.
Poppy.	Infusion of galls.
Phosphorus.	Magnesia and water.
Sulphate of Zinc, (White Vitriol.)	White of eggs, milk.
Sulphurous acid gas.	Inhale ammonia cautiously.
Sulphuretted Hydrogen.	Inhale Chlorine cautiously.
Stings of Insects.	Wash in water of ammonia.
Serpents and rabid animals, bites of.	Cut out the part, if it can be done immediately, apply a ligature and cup the wound.

* This same antidote is to be used in all the poisonous compounds of Arsenic.

† Sweet oil is the popular nostrum for all sorts of poisons. It should never be resorted to where more efficient antidotes are applicable.

MISCELLANEOUS SELECTIONS AND INTELLIGENCE.

1. *Lepra of Greece.*—Having spoken to Dr. Raisor, of Athens, of the Lepra of that country, and expressing a great desire to examine the character of it, he very kindly gave me his views on the subject, and invited me to witness the disease for myself in some of his patients. In company with him and my worthy travelling companion, Dr. Jackson, of this city, we repaired to the residence of a family in which a young man was affected with the disease. I examined him with great care and minuteness, heard the history of his symptoms, and saw the disease for myself, as it now affected his throat. I ascertained that the affection commenced in its primary stage in the same parts as those attacked by the syphilitic virus, and that the ulcerative appearances in each bore a striking resemblance, both in that stage and the constitutional or secondary form, which latter truth I myself can attest to from the case under my inspection. The primary ulceration, as well as those in the throat, were harder, and with edges more callous, elevated, and irregular, than is usually seen in common cases of Lues; but they were such as I have occasionally seen in Lues of our own country. The same character of ulceration was visible in the throat of this patient; and immediately upon looking into it, I remarked to Dr. R., that this was certainly a form of Lues, to which opinion Dr. J. gave also his full concurrence. It passes through the same stages as ordinary Lues, from the throat to the skin, and lastly, to the bones. I am therefore of the opinion, from what I saw, that the Lepra of the Greeks is a more formidable, and apparently a more chronic disease, than modern syphilis, but legitimately descended from the same parentage. If the *Leprosy* of the patriarchs of old was the same as the Lepra of Greece, and which latter I afterwards found, to my satisfaction, to be the same as the Lepra of Egypt, it is my opinion that the ancient leprosy is the great progenitor of them all, and that climate, habits of life, constitution, and difference of race, make all the modifications which it has assumed in different countries and ages.—*Dr. Mott's Travels.*

2. *White appearance of the Tongue.*—There is not a more common error, than to consider this natural appearance morbid.

Thus, persons who are in the habit of thinking themselves "bilious," and taking physic, look at their tongue when they rise in the morning, and find it white. A good breakfast will make it look red, unless they take a dose of salts, Seidlitz powder, or sometimes even whether they do or not. The same persons will perhaps put out the tongue before a looking-glass just before dinner-time; and seeing it white, forego a part of the wholesome meal which would bring the tongue to the natural color of redness which it assumes after eating, from its natural paleness before eating, unless they be gourmands and hypocondriacs at the same time; in which case they will run the hazard of eating, and take a calomel "peristaltic persuader" afterwards. I have been constantly in the habit of warning my young medical friends to consider, when they see a white tongue, what time of day it is, and *not to purge* for merely a white tongue, or more properly, a *pale* tongue.

The tongue is constantly very properly inspected in disease, as it affords an evidence of the state of the mucous membrane of the stomach and bowels, with which it is continuous. In health it is not of a bright red, but has a pale bloom on its surface, in consequence of the tips of the villi or papillæ being less injected with blood than the lower parts; when the stomach is empty, it contains less blood, its villi are of course paler, and those of the tongue are nearly white: but, observe, the tongue is moist; whereas, in the beginning of synocha or pleurisy, or other inflammation, the stomach is empty from anorexia, and the tongue is white; but it becomes dryer than from a mere empty stomach, and more or less coated, arising from the evaporation of the watery parts of the saliva and mucus of the mouth, which leaves the membrane indued with a more viscid covering than natural. After eating, when the stomach is in a state of healthy activity, the tongue becomes redder; but still it is not of a bright red hue, which only takes place when the membrane of the primæ viæ is in a congested or inflamed state, as in dysentery, in phthisis when colliquative diarrhœa exists, at the termination of typhoid fever when there has been, in reality, gastro-enteritis, or inflammation of the glandulæ agminatæ, etc.

In the progress of severe fever, when the secretions are suspended, the tongue becomes dry, and the mucus which does exits, dries, and forms a brownish or blackish crust, and the papillæ become so much shrunk down to the level of the rete mucosum, that when the

tongue becomes clean, on recovery, it looks glazed and smooth, and some time elapses before the papillæ rise up again.

In chronic affections, accompanied with a languid and flabby state of the primæ viæ, a discolored state of the mucus occurs, constituting what is called a foul tongue.—*Billing's Principles of Medicine.*

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3. *A new operation for the Cure of Varicocele*, by J. Pancoast, M.D.—Dear Sir: I send, at your request, the following account of a method which I have twice employed with success for the cure of the varicose enlargement of the veins of the spermatic cord and scrotum, known under the names of cirsocele and varicocele.

Previous to the operation, the patient is to be directed to walk about for an hour or two with the scrotum unsupported, so as to cause an accumulation of blood in the enlarged veins. He is to be seated on the side of his bed, with the legs separated. The thumb and forefinger of the left hand are then to be pressed in, so as to lift up the enlarged veins, and thus separate them from the vas deferens. This duct is readily distinguished by its hard and wiry feel, and is to be pressed off with the nail of the left forefinger towards the os pubis. A long, round lancet-pointed needle, curved near the point, like that of the sail-makers', threaded with a piece of fine but strong hempen twine passed double through the eye, is then to be carried between the bundle of veins and the vas deferens; entering it on the side of the thumb, and bringing out the point against the pulpy portion of the finger. The loop of the double ligature is to be detached from the needle; the ligature being left in the track of the wound. The needle, without being threaded, is again to be entered through the same orifice of the skin as before, but carried this time between the skin of the scrotum and the veins of the cord, and its point brought out through the other puncture made in the skin on the side next the pubis. To facilitate this step, the skin should be lightly raised up from above the veins with the thumb and finger. If there is any enlargement of the subcutaneous veins of the front part of the scrotum, as there was in one of my cases, I carry the point of the needle so as to scrape the under surface of the skin, and get it in front of these veins. The needle is now to be left in the wound. I manage to have the place of entry of the needle lower than

the point of exit; so that the point of the instrument, which should be pushed well through, may lay undisturbed, without pressing over the root of the penis. The course of the instrument across the cord will be, therefore, rather diagonal than transverse. The loop of the ligature (which lies next the pubis) is now to be thrown over the point of the needle. Traction is next to be made upon the other side, upon the loose ends of the ligature, so as to draw the loop along the needle, through the orifice in the skin. One tail of the ligature is now to be drawn out for four inches, so as to shift the portion of the thread, forming the loop over the needle, for fear that this might have been cut by the point or edge of the needle, so as to break when subsequently knotted. The loose ends of the ligature are then to be drawn tight, and tied with a single knot over the shank of the needle; this is to be drawn as tight as possible, so as to completely strangulate the veins of the cord, which will be thus enclosed by the double ligature on its back part, and the needle in front. To make the strangulation more effectual, the two ends of the loop thus formed over the needle may be slid towards each other, by pressure through the skin, and the knot again tightened. Severe pain follows this step, which gradually diminishes, and at the end of half an hour ceases almost entirely. To be able to tighten the ligature again at the end of two or three days, when it will be found loosened by having partially cut through the compressed mass of veins, I slide an oblong piece of sole leather, pierced in the centre and knotched at the ends, over the heel of the needle, and make a firm double bow knot of the ligature above it. The point of the needle is to be sheathed in a small cork, and a compress placed below it to prevent its worrying the skin. A piece of thick tape is to be passed through the eye of the needle and knotted, in order to prevent it, when it has become loosened by suppuration, from being pressed through the hole in the leather, by the movements of the thigh, so as to loosen the loop. The scrotum is to be slightly supported by a couple of silk handkerchiefs, folded and placed below it. No dressing is required. If neuralgic pains arise, they are to be soothed by hot fomentations, and the administration of anodynes. I untie the ligature over the leather every third day, for three successive periods, tightening it as much as possible each time. On the eleventh I remove the needle; the loop, which is then left detached, and has become very small from the successive tightenings, is at the same time withdrawn.

Above the place of the ligature, the condition of the cord at this time appears perfectly natural; below it there is a hardened mass of the size of a walnut, formed by the effusion of lymph, between, and in all probability in the cavities of the veins so as to obliterate them entirely. The pain attending this process of cure is but trifling, except at the periods when the loop is tightened. There is no injury done to the integument, such as to leave a scar after the cure is completed, for the needle, if introduced in the manner I have mentioned, lays so completely at rest, as to cut but very slightly at the places of puncture, and as it makes no pressure in the downward direction, eannot by any possibility impair the integrity of the vas deferens. After the withdrawal of the needle, a light poultice may be laid for a few days over the part, to promote suppuration from the points of puncture, and to facilitate the resolution of the tumor left, a result which is quickly effected.

The advantages of this method of operation will, I think, be found sufficient to recommend it to the notice of practitioners. The plan of cure recommended by Sir A. Cooper, which involves the excision of a part of the scrotum, is severe, dangerons, and inefficacious. The methods of Breschet and Ricord are complicated by the use of cumbersome apparatus. That of Reynaud is attended with a division of the intuguments, which leaves, like the three former, a permanent cicatrix, and the modification of this, as suggested by M. Vidal, appears by no means free from objections.

The two latter I have, however, successfully employed, but the treatment of the cases have been necessarily longer, and attended by a much greater amount of suffering. In one instance, after treatment by Ricord's method, an enlargement of the veins subsequently reappeared.

By the method which I have proposed, it is possible at any moment, in case the strangulation of the veins and nerves of the cord should give rise to obstinate neuralgic pains or retention of urine, to relieve the patient by slackening temporarily the ligature, and to shorten the period of treatment by removing the ligature, when the effusion of lymph has completely obliterated the diseased veins, without waiting for it to cut entirely through the enclosed part. But should it be deemed necessary in certain extreme cases to have this division effected, thereby to more completely prevent the disposition to return of the disease, as when the effusion of lymph did not seem

sufficiently abundant, we can accomplish the result the more readily by this method, which gives us the power to tighten the loop from time to time, in proportion as it becomes loosened.

By keeping the cavity of the veins in the grasp of the ligature thus constantly closed, the risk of purulent absorption from the veins below is greatly diminished, if not entirely removed; for the constituents of the cord above the site of the operation are scarcely at all affected. The details of the operation are given for the left side, for it is upon that, almost exclusively, that the disease is found to exist, in consequence, it is most probable, of the entry of the left spermatic veins into the emulgent at a right angle to the course of the latter; while those of the right open into the vena cava nearly parallel with the course of that vessel.—*Med. Examiner, Philad. Feb.* 1843.

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4. *Tar in Skin Diseases.*—Dr. Cless, in referring to a case of psoriasis treated by Dr. Blich, the cure of which he ascribes to the use of tar ointment, takes the opportunity of directing attention to the great efficacy of tar in all kinds of chronic disease of the skin. Following Emery's example, he used it with success, for the last three years, in a great number of cases, in the Catharine Hospital at Stuttgart.—*Haeser's Repert*—Bulletin Med. Science.

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5. *On the cure of Hysteria by means of Ergot of Rye.*—In two varieties of hysteria, M. Nardo has found the internal administration of the ergot of rye followed by the rapid removal of the disease, viz. in that seeming to depend on simple atony of the genital system, and in that depending on atony of the nervous and genital systems. His practice consiated in administering about a scruple of the ergot with sugar in divided doses each day, intermitting the dose every third or fourth day. A number of cases are shortly related proving the efficacy of the practice, the hysteria and the irregularity or absence of the menstrual secretion being removed at the same time.—*Memoriale della Medicina Contemporanea—Ibid.*

6. *On Stricture of the Urethra.*—After enumerating the various diseases of the bladder, to which stricture of the urethra may give rise, M. Cruveilhier states, that writers have erred in enumerating many organic alterations as the cause of permanent stricture. In all his dissections, he has found but one cause present, viz. fibrous degeneration of the urethral canal at the point of stricture. This alteration of structure may only occupy one point of the canal, and constitute a circular narrow stricture, or it may extend over a greater surface, and narrow the canal through an extent of from six to twelve lines. In some cases the diseased structure is confined to the mucous membrane, in others, to the whole thickness of the coats of the urethra. This fibrous transformation, he thinks, may be owing to two causes, either to chronic inflammation of the mucous membrane, or to ulceration; the last being the most probable, as he cannot understand how the inflammation could be limited to the membranous portion of the urethra, at which point these strictures constantly occur. If these facts are admitted, they prove, says he, the worthlessness of forcing a passage by means of catheters and conical-pointed sounds, as well as of cauterizations, and the necessity of removing the constriction by means of gradual dilation, continued for a very long period. These observations seem also to prove that the strictures have a constant tendency to return, and that stricture once produced can never be completely cured.—*Edin. Med. and Surg. Jour.* —Bulletin of Med. Science.

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7. *Nervous Asthma.*—A memoir by M. Ducros, of Marseilles, was read to the French Academy of Sciences on the 19th of September last, in which the author states, experience has shown that the application of ammonia at 25° over that part of the cervical vertebræ which corresponds to the pharyngeal plexus, has the power of almost instantly arresting most attacks of nervous asthma. Nine cases are brought forward by M. D. in proof of the efficacy of this treatment. —*Gaz. Med. de Paris.*—Amer. Jour. Med. Sciences.

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8. *Tic Douloureux cured by repeated blistering.* By M. D. Valleix.—The patient was a woman, forty-two years of age, much exposed to the weather, and laboring under a fourth attack of neu-

ralgia facialis. The pain began from the right suborbitary hole, and then radiated towards the temple and side of the head. Any motion of the face, such as chewing or laughing, brought on the attack with dreadful severity. The right side of the face was held so motionless that the patient looked, at first sight, as if affected with paralysis there. The appetite was good; all the functions were regularly performed. Infusion of lime-tree flowers; two flying blisters, one to the lip, another to the forehead. Next day another blister to the right cheek. The patient suffered greatly, immediately after the blisters; but by and by she complained less; and from the 11th to the 19th August improved much. On the 16th, 19th, 22d, 24th, and 30th, blisters were applied again, and the patient made progress. On the 1st September, M. Louis having taken his turn of hospital duty, opiates were presented freely to the 7th; but the patient gradually got worse and worse. On the 7th the blisters were again had recourse to, and on this occasion with such effect that the patient made no farther complaint, but recovered completely, and soon left the Hospital Beaujon quite well.—*London and Edin. Med. Jour.*—Am. Jour. Med. Sciences.

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9. *Diabetes Mellitus cured by Hydrochloric Acid.*—Dr. Gennaro Festeggiano relates in Il Observatore Medico, Feb. 1842, a case of diabetes mellitus which he had treated successfully by a drink acidulated with hydrochloric acid, and containing a small quantity of ipecacuanha. The symptoms were abated in eight days, and the patient was cured in a month.—*Amer. Jour. Med. Sciences.*

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10. *Sweating Sickness.*—This pestiferous disease, which caused such ravages in England in the 14th and 15th centuries, has prevailed in some of the departments of France during the past year. In the department of Dordogne, out of a population of 82,200 persons, 10,400 were attacked, of whom 800 perished; being a mortality of 1 in 13. It was observed to rage mostly in marshy situations, and to be best treated in a similar manner to intermittent fever, viz. with quinine, and other tonics, taking particular care to interfere in no way with the march of the miliary eruption.—*Gazette des Hopitaux.*—Med. News.

THE WESTERN LANCET.

CINCINNATI, MAY, 1843.

OUR SECOND VOLUME.

In commencing the second volume of the Western Lancet, we have but few introductory remarks to make. Having passed through what may be termed a probationary state, we feel gratified with the kindness with which our labors have been received by the profession. The scarcity of money, the newness of the enterprise, and other embarrassing circumstances, have contributed to render the task difficult and arduous; but notwithstanding all these impediments, our patronage has been much beyond what was anticipated, and at the present time is very favorably extending.

Our future course will correspond with the declarations made at the commencement of the first volume. Allied to no systems or parties, and having no personal animosities to indulge, the pages of our journal will be devoted strictly to the professional interests, always regarding individual rights as co-equal, and never attempting to elevate one portion by depressing another.

To the department of original communications we ask the aid of physicians generally. We cannot avoid the conclusion, that there is a remissness, on this subject, that demands correction. True, we could not desire that every common-place disease or accident should be reported; but there is a large amount of important practical matter constantly occurring, the aggregate of which must make up the improvements in the profession, but which is lost for the want of being placed on permanent record, for present and future reference. All original observations, histories of new diseases, or modifications and complications of old ones, the progress and peculiarities of epidemics, and any thing tending to settle disputed points in practice,

accompanied by such remarks as might be suggested by the subjects, could not fail to prove interesting and valuable to readers generally. We hope our friends will reflect on this subject, and endeavor to furnish such matter as may come within their reach.

With the experience gained in editorial duties during the past year, and an increased devotion to the subject, we hope to render the Lancet more worthy of patronage than it has heretofore been. More attention will be given to the miscellaneous selections, by which we will be able to present to our readers the various improvements and suggestions that are made throughout this and other countries.

In conclusion, we wish to make an *implied* pledge, an *expressed* one, and that is, whenever a volume is commenced, its publication will not cease until that volume has been completed.

Clinical Reports.—We have the pleasure of announcing to our readers, that regular Reports, from the Medical and Surgical Wards of the Commercial Hospital of this city, will be made for the Lancet, by the attending physicians and surgeons, and the highly intelligent Resident Physician, Dr. Davis. This institution, which is the largest in the Western country, will furnish a large amount of highly interesting and valuable matter; and as the Faculty of the Medical College of Ohio, who have, *ex officio*, control of all its medical arrangements, have kindly consented to furnish regular reports, we will be able to lay before our readers a highly important class of medical information. These reports, added to communications which we have reason to expect from our correspondents generally, will, it is believed, render the original department of the Lancet interesting and instructive.

Medical Convention of Ohio.—We call the attention of our readers in Ohio to the State Convention, which will assemble at Lancaster, on the second Monday in May next. But one opinion prevails as to the utility of these primary assemblages, it would therefore be superfluous to urge their utility. Time and experience have fully settled that question. We would remark, however, that as *individuals*, we are too apt to consider ourselves less immediately concerned in sustaining the Conventions than our neighbors. But

instead of this partial view, or any apathy on the subject, *every physician* should consider that he has an immediate interest in its success, and a duty to perform in securing that success, which rests upon all, individually and collectively. We hope, therefore, that trivial circumstances, or slight inconveniences, will not prevent individuals from attending, and by their presence aiding the deliberations of the Convention.

Bartlett on Typhoid and Typhus Fevers.—We are induced to call the attention of our readers to Professor Bartlett's work on Typhoid and Typhus fevers, from a conviction that its careful study is a matter of importance to every practitioner, especially to those who have had doubts as to the prevalence of typhoid fever in this country. It must be obvious, even to a casual observer, that our diagnosis, and, as a matter of course, treatment, in the various forms of fever, is often obscure and unsatisfactory. Obstinate and unyielding in its course, or anomalous in some of its symptoms, the whole difficulty is too commonly covered by the term *congestive* fever. That our fevers have been modified by occult and inappreciable agencies, and that the congestive forms of disease have been greatly multiplied, will not be denied; but, at the same time, there cannot be a shadow of doubt, that neither the congestive nor bilious pathology can satisfactorily explain many of our febrile diseases. Purely *congestive fever*—we refer to that form of fever in which congestion is the elementary pathological change—is a rare disease, and we apprehend has been witnessed by few in this country, except perhaps in some of the Southern States.

That typhoid fever, that is, a continued fever, having a specific period of duration, and being almost uniformly accompanied by inflammation and ulceration of Peyer's glands, does exist in this country, and that it demands a treatment essentially different from the active, perturbating system of medication applicable to some forms of fever, are doctrines now too clearly established to be successfully controverted. If, then, it is true that typhoid fever is one of our common diseases, and that in consequence of peculiar organic lesions, the heroic treatment, especially protracted and active purgation, cannot with propriety be adopted; how important it becomes to make a correct diagnosis, and how fearful the results should we fail in accomplishing that object.

Although particular points in this work might be selected which we would consider obnoxious to criticism, such, for example, as the declaration that the lesion of the small bowels in typhoid fever is found in no other disease; yet it must be remembered that no author, however accurate and profound his researches may be, could avoid all errors, or succeed in suiting the taste of every reader. But notwithstanding these small points of diffierences of opinion, Professor Bartlett has unquestionably furnished a most accurate and finished history of typhoid fever; and if generally circulated, and properly studied, as we trust it will be, more positive good will be accomplished in the diagnosis and treatment of fever, than has resulted from any other single source. The work does not purport to be original, but is rather a summary—the most laborious class of writing—of the present state of our knowledge upon the subjects treated of; and in this effort the able author has been completely successful.

Willoughby University.—The annual Catalogue of this institution informs us of the prosperity of its Medical department. During the session of 1842-3, seventy-one pupils were in attendance; and at the close of the session preceding, the degree of M.D. was conferred on fifteen candidates. The following gentlemen received the Honorary degree of Doctor of Medicine: James P. Henderson, Richland co., O.; S. Axtell, Mercer co., Pa.; G. W. Card, Lake co., O.; D. Upson, Summit co., O. The Trustees very properly advert to the appointment of Prof. Kirtland, to the chair of Theory and Practice and Physical Signs of Disease, as a valuable acquisition to the school. The learning, and abilities of Prof. K. as a teacher, would do honor to any school. The lectures commence on the first Wednesday in November, and continue sixteen weeks.

Eaton Medical Society.—Dr. A. H. Baker, Recording Secretary of this Society, which is located at Eaton, Preble county, O., has published an account of the origin, objects, and progress of this association. The present society was chartered in March 1842, and at this time exhibits a highly prosperous condition. Its objects are the promotion of scientific pursuits, and social intercourse. The meetings of the society are held semi-annually on the first Tues-

day in May, and the first Tuesday in October, and the exercises consist in dissertations, reports of cases, debates, etc. The following officers were elected for 1842: D. A. Cox, President; N. Donnellen, Vice President; A. H. Baker, Recording Secretary; P. M. Crume, Corresponding Secretary; N. Donnellen, Treasurer; D. Anderson, Librarian; Baker, Crume, and Lineweaver, Censors. The following Standing Committees were also appointed: 1, On Quackery; 2, On Improvements in Medical Science; 3, On the Collateral Sciences; 4, On Finance. Each committee to report annually.

The judicious organization of this society, and the high standing of the gentlemen who are immediately interested in its sustenance, afford the most confident assurances of its ultimate success. The interest of the profession requires the formation of Medical Societies in every district of country. Such associations tend greatly to harmonize and elevate the profession, and, as a necessary result, to suppress quackery. No county in this or any other State, should be without a Medical Society, and if one county does not afford a sufficient number of members, two or more could be united. We hope to receive reports from societies, by which their progress, etc., might be made public, and others induced to follow their examples.

Prize Essay.—The Medical Society of Virginia offers a *gold medal* for the best essay on "The value of Opium in the Treatment of Febrile Diseases." "It is required that the essays be sent in by the 1st October 1843, and be addressed (post paid) to the Corresponding Secretary, Frederic Marx, M.D., Richmond, Va. Each essay to be accompanied by a sealed note, giving the name of the author, and the post-office through which to communicate with him."

Law and Medicine.—A bill has been introduced into the Legislature of New York to abolish all legal restrictions in the practice of Medicine and Surgery. By the regulations of this bill, any person who is a citizen of the United States, and twenty-one years of age, is entitled to collect fees for medical services, provided he files a bill in the Clerk's office setting forth his intention to practice, and the system which he intends to adopt. The motley brood thus moulded into comeliness by the plastic hand of legislative authority,

notwithstanding their legal existence, are nevertheless, held amenable to the civil tribunals for malpractice. We are not informed, however, as to the exact mode of punishment, whether it is to consist in fines, hanging, or the guillotin. But we presume the wisdom of the legislature is fully equal to the emergency of the case. Should the bill become a law, there will doubtless be ample scope for a display of medico-legal learning by members of the bar.

We are forcibly impressed with the belief, that there is a necessity for the legal regulation of medical practice, and thereby the protection of life and health, equal to that existing for protection from the midnight bandit, or the open assassin. We do not mean to say that the law should recognize any *system* of medical practice; on the contrary, every individual, whether physician or patient, should be left free to select his own mode of giving and taking medicine. But we do contend that every individual assuming the highly responsible position of a medical practitioner, should be *required by law* to become acquainted with the *elementary* branches of medical science, such as anatomy, physiology, chemistry, pathology, general therapeutics, and the general rules of surgical practice. These elementary branches are indispensable, and he who attempts to grapple with disease without them, is combatting an enemy, without system, strength or weapons. Candidates for medical practice [illegible] be compelled by law to study and exhibit a satisfactory knowle[illegible] of these branches, and yet no exclusive system would be recog[illegible]ed, but the physician would be left free to select calomel, lobelia, homœopathy, hydropathy, or such other *modes* of medication as his fancy might dictate. The means of study are accessible to all, and the law proposed would establish no exclusive privileges, but tend rather to equalization; hence, objections on that ground will be made only by those who are too indolent to acquire knowledge, and therefore fear the ordeal of an examination. We believe that this course would tend more to elevate medicine from its present depressed condition, than any other measure that could be devised. We would therefore suggest the propriety of some action on this subject, with the hope that its success would prove beneficial to society. The approaching Medical Convention in Ohio, will afford a good opportunity for the physicians of this State to interchange opinions on the subject, and, if expedient, to adopt such measures as may be best calculated to accomplish the object.

THE

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ORIGINAL COMMUNICATIONS.

Art I.—*Abstract of a Case of Gun-shot Fracture of a Vertebra.* Read before the Medical Convention of Ohio, May, 1843. By Dr. John G. F. Holston.

On the 29th May, 1842, 11 o'clock A. M., I was hastily summoned to the assistance of Elias Shoemaker, said to be shot by his brother and mortally wounded. Having hastily gathered up some instruments, I arrived at the scene of action about one half hour after the fatal affray. The patient was yet lying in the woods, in the spot where he had fallen, his head down hill, on his right side, and partly on his face. The lower limbs, which were perfectly relaxed, were in a state of semiflexion. Near him was a puddle of blood. I made a superficial examination, and, deeming him capable of immediate removal, had him conveyed to the nearest house, a distance of one quarter of a mile. He was laid on a straw bed (mattress could not be had) for coolness, and having allowed him a short rest, I proceeded to a more careful examination. There was no more hemorrhage—the bullet had passed into the body in a downward direction, slightly inclining to the left—it had struck the tenth dorsal vertebra, a little to the right of the spinous process, which, as well as its arch, it had shattered: thence it passed directly through the spinal marrow, and lodged in the body of the bone. Immediate extraction was not to be thought of—so I left it to be loosened by suppuration; and, having picked

away a number of bony fragments, ground small by the rotary motion of the ball, for which purpose I was obliged to dilate the wound about one inch downward, so as to bring the external and internal orifices in apposition; I finished the dressing by applying a compress, dipped in cold water, and a circular bandage over all. The left superior maxilla next claimed my attention. The body of the jaw was broken into several pieces, and one of the molares hung only in the gum. The injury seemed to have been inflicted by a blunt instrument, as the coverings of the bone were much bruised. There existed also, on the cheek, an external wound, about one and a half inches long, seemingly produced by a blunt edge. Both eyes were blackened, swollen and nearly closed. The external wound was united by adhesive plasters; and the fragments, after being replaced, were without much difficulty retained in a proper position by bandage. I found some bruises on each side of the trachea, made by the fingers and thumb of the left hand. The impression of the thumb was on the left, and that of the fingers on the right side of the trachea. The latter injuries, seeming but superficial, I directed them, as well as the face, to be frequently sponged with warm vinegar. I ordered the patient to be kept cool, and take no food till my next visit. Lemonade and cold water, which he eagerly desired, were allowed ad libitum. At this moment, Saul Shoemaker, the assassin of my patient, entered the room, for the purpose of inducing his brother to say something in his favor. Having cautioned him not to excite the patient too much, I allowed him to address him. He stated that the gun had gone off accidentally, while he was putting on a percussion cap; and, on being shown the marks on his brother's face and throat, he added, that, seeing him fall, he had hastened to his assistance, but finding him mortally wounded, his presence of mind left him—he thought he would be taken as a murderer and executed, and that, as Elias was in great misery, it would be charity to despatch him. He struck him several blows with the butt of his rifle—that failing, he attempted to stifle his cries with his hands—but, on discovering the approach of witnesses, he fled.*

* That the shot-wound could not have been accidentally inflicted in the way Saul stated, may be inferred from the fact, that he was an expert hunter, and therefore in capping his gun would have the breech resting in the bend of the left arm, the muzzle pointing upward, which would have sent the bullet harmless through the air, instead of inflicting a wound in a downward direction.

Saul being removed by the officers in pursuit of him, I again looked to my patient, and found him much less excited than might have been expected. However, he now complained of unpleasant distention of the abdomen, which, on examination, I found to be produced by the inflation of the intestinal tube, no longer compressed by the paralyzed abdominal muscles. For this symptom, I directed frictions over the abdomen, with warm spirits of turpentine, and a cover of flannels—then took my leave till evening.

6 o'clock P. M. The patient was comparatively comfortable—symptoms of tympanitis, as on my former visit—feeling of distention of the bladder, but cannot urinate—tongue clean and moist—pulse 80 and feeble, and thirstless. After failing in the introduction of a silver catheter, which, being too small in caliber, became entangled in the folds of the completely relaxed membrane of the urethra, I easily introduced a large gum-elastic one, with its stilette, and extracted about one and a half pints of limpid urine. There was no discharge from the wounds; occasional hiccups. Ordered slippery-elm water as drink—no solid food.

10 P. M. Reaction had come on about one hour previous. The skin, before cool and moist, was now dry and warm—the tongue exhibited a slight white fur, the cheeks a little flushed—pulse about 90, with a wiry twinge. I did not deem bleeding necessary, as the patient had lost much blood previous to his removal. I directed, in addition to the mucilaginous drink, one fourth gr. of Tart. Ant. and Potass, every two hours p. r. n., so as to keep up a continued slight nausea. Singultus still continued.

May 30th, 8 o'clock A. M. He had passed a tolerable night, and had had some sleep. The Tart. Ant. and Potass had been regularly given, but produced no nausea or evacuations. Hiccups yet occasionally—tongue yellow, furred in the middle—pulse 90 and soft, rather fuller than yesterday. Patient was perfectly rational, but complained of deep-seated pain in the right side, below the ribs, of a dull aching character—distention of the bladder, persistence of the meteorism, though lessened in degree. There had been a considerable discharge of bloody serum from the back. The patient always lies on the side. Having abstracted about one and a half pints of fœtid urine, and ordered warm fomentations to the painful side, I took my leave, having ordered him some bread and tea for breakfast.

12 o'clock, M. There was no change. Prescribed Subm. Hydrarg. gr. xv., to be given at once.

6 o'clock, P. M. Fever was rising. In the afternoon the patient had taken a little toast and water, with a good appetite. Hiccups but seldom—inflation of abdomen less. Having evacuated the bladder, I ordered the Tart. Ant. and Potass as before.

31*st*, 8 o'clock, A. M. The patient had passed a bad night, though the solution of Antim. had been freely given. Fever had been strong, accompanied with delirium. No alvine discharges, but singultus had ceased, though the abdomen was yet somewhat inflated. Towards morning he had a few hours refreshing sleep, and, having breakfasted on tea and bread, felt "pretty smart," and in great hope of recovery. There was still some pain in the side—tongue brown—pulse about 100, feeble, but somewhat wiry—no defecation since the injury. Ordered a table-spoonful of Sulph. Magnes. For diet, toast and water, or tea and bread, or chicken soup, in small quantities.

12 o'clock, M. Salts had not operated, nor likely to act. I ordered an enema of starch, castor-oil and turpentine.

6 o'clock, P. M. The purgative had not operated, and the enema had immediately run off. The pain in the right side persists, but is not sensibly aggravated on pressure. Urine very fœtid, mixed with thick mucus, requiring frequent clearing by the catheter, before it could be finally abstracted. Directed two gtts. croton oil, in one table-spoonful of castor oil, every hour till the bowels should be moved.

June 1st, 8 o'clock, A. M. The patient had taken 20 gtts. croton, 10 spoonfuls of castor-oil, which had procured two copious motions of thin consistency, and natural appearance. Patient felt better in every respect—inflation of abdomen hardly perceptible—pulse about 95, soft and weak—urine as before. I removed the dressings, which on the back were soaked in purulent discharge. The wound of the spine looks fine, not even a red blush or puffiness of the skin around it—but there exists a small circular slough about one line thick. I removed several splinters of bone, and having washed it, dressed the wound with lint and basilicon ointment. The upper half of the wound is very sensitive, while at the lower he has no feeling. From the introduction of the catheter, he experiences no other sensation than a vague feeling of relief, and would not have

been aware of the motions of his bowels, but for the noise. The wound of the face has nearly healed by the first intention, and the discolorations are rapidly dispersing. So flattering are appearances, that even a medical man declared there was no doubt of his recovery.

From this time, the wound in the back discharged copiously, and at almost every dressing more fragments of bone came away. The slough of the soft parts came away in five days, and the wound was so rapidly filling up with granulations, that I was unwillingly obliged to insert a tent, as the bullet, and numerous fragments of dead bone, were yet retained. The fracture of the jaw consolidated in about one month, even the loosened molar became again firm. Indeed, for four or five weeks the patient complained only of the constant necessity of using purgatives and the catheter. Occasionally I administered a little balsam copaiva, which lessened the quantity of vesical mucus, but the remedy proving extremely disgusting, I substituted Holland gin, with happy effect, the commencing prostration having rendered alcoholic stimulants and tonics (I gave ext. cort. peruv.) proper. The pain in the side was always removed by free alvine discharges. The weather becoming very hot, I began to apprehend beds-ores, and, therefore, directed him to be frequently turned, and to have his hips sponged with cold water. There was also great difficulty to keep the flies from the sore, which I accomplished, however, by having the external dressings moistened with a weak solution of deuto-chloride of mercury, and including in them a piece of camphor. His appetite being good, I allowed him light, generous diet. About the middle of July, some yellow pustules made their appearance on the hips. I directed them to be washed with chloride of soda, but they broke, leaving confluent sores, covered with a black crust, while a new crop succeeded: the dreadful evil, bed-sores, had begun. Infusum cort. quercus, with cresote, was also useless. Tannate of lead, freshly precipitated in the form of a soft ointment, was a little more efficacious, checking the abundant discharge, and retarding the extension of the ulceration. The patient took opium, cinchona and acids, freely; but the sores never looked well, and were two inches in diameter and filled with a dry black slough half an inch thick.

Aug. 2d. I extracted the bullet, then loosened by suppuration; its weight was one hundred and seventy-five to the lb. By passing through the bones with a rotary motion, it had become extended to the length

of an inch, was twisted, blackened by oxidation, and was pierced through with sharp splinters of bone. Notwithstanding the general aspect of the case day after day became worse, there was a partial return of sensibility, as low down as the great trochanters, never amounting, however, to distinct feeling, for though sensible when something touched him,* he was incapable of distinguishing his sensations. But this was only a new evil, as the suffering from the bed-sores frequently became distressing, and caused him more trouble, than his back and other wounds had done together. The bladder now began frequently, and quite involuntarily, to contract itself, and expel its contents by jets, so that catheterism became unnecessary. A similar discharge from the rectum occurred every two or three days, obviating the use of purgatives. But, in lieu of these troubles, an unmanageable dry, hacking cough, accompanied with dullness on percussion under both clavicles, and occasional night sweats, showed itself: phthisis was setting in. The pain in the side also returned, severer and more frequent, and was not improved by the patient taking for some weeks the following pills: ℞. Ext. cicut. gr. xxxii.; mas. hydrarg. gr. xvi. M. Ft. pil. 32; Capt. 1 ter die; also directed external applications, of various stimulating liniments, as Granville's antidynous lotion, etc. About this period the patient was removed on a litter to his own home, two miles distant, which journey he bore well, and about the 1st of September the wound in the back was perfectly cicatrized, resembling the umbilicus in appearance. From this period to the first of December, the phthisical symptoms increased, and the bed-sores increased in number and size. Slough after slough separated, though I had the hips dressed daily with many thicknesses of batted cotton; till on the left side the great trochanter, and four inches of the outside of the femur, were completely denuded, carious and exfoliating, as well as the middle of the sacrum, and the anterior spines of the ilia. The inferior extremities were rigid, semiflexed, and the left leg a little crossed over the right one. There were also deep sores in each groin, the penis was excoriated, and the anus ulcerated. About this time an abscess formed in the cheek, without premonitory symptoms of inflammation, which

* The partial return of feeling, etc. I think could not be ascribed to any part of the broken spinal chord re-uniting, and becoming fit for the transmission of the nervous fluid; but rather to the increased sensibility and size of the small downward branches of the superior dorsal nerves.

broke in a few days, discharging fœtid pus, mixed with saliva, and leaving a fistulous opening, connected with the carious os malar. He now had occasional spells of colic, followed by colliquative diarrhœa, impossible to arrest—had regular paroxysms of hectic, followed by profuse perspiration every day. His appetite, which hitherto had been good, now began to fail. He had nightly delirium, and sometimes even raved in the day time. About ten days before his death, he began to breathe with difficulty, so that he had to be propped up in bed. This increased, coma supervened, and he expired the 19th of February, 1843, having survived the injury nearly nine months.

Autopsy twenty hours after death. Present—Dr. Robert Mitchell, of Zanesville, Dr. W. Mitchell, of Norwich, Drs. W. E. Foe, David G. Campbell, my assistant and myself, all of Zanesville. Body excessively emaciated. Orbits appearing almost empty, abdomen tumefied, skin looks like tanned sheep skin, and is almost void of hair. The bed-sore on the left hip and thigh eight inches long, by three and a half wide, covered with a deep, hard and black slough. The great trochanter was carious, and around it a deposition of bone of a worm-eaten appearance,* forming when dissected out, a disk of two and a half inches in diameter, by three-quarters of an inch thick. From the femur a thin lamina was about exfoliating, four inches long, under it were red granulations. The sore on the right hip, though also exposing the carious bone, not quite so large. The sore in the right groin is connected with a spot of gangrene in the perinæum, of recent occurrence, about two inches square. The other sores present no remarkable appearances, though all are connected with carious bones. The fistulous opening in the cheek is connected with the carious os malar, and has been caused, probably, by closure of the parotid duct, which remains shut. On each side of the trachea is a white cicatrix.

HEAD.—Having noted the external appearances, the cranium was opened. Membranes healthy; brain and its appendages perfectly normal; there was nothing remarkable except the extreme solidity of this viscus, and the almost total absence of moisture. The middle lobes of the cerebrum comparatively large; medulla oblongata pro-

* The deposition of bone around the trochanter, was a singular circumstance, evidently an attempt of nature to repair the injury; but the product not possessing sufficient vitality, it became carious as soon as formed.

portionally small; spinal marrow healthy to an inch above the wound—thence to an inch below, it was surrounded by a reddish firm jelly, filling the whole rachidian canal. The bullet had passed through the very centre of the spinal marrow, and lodged in the inter-vertebral space, between the tenth and eleventh dorsal vertebræ, which were firmly anchylosed. The cicatrix, on each side of which the membranes of the spinal chord and the roots of the nerves, were very distinguishable, was of cartilaginous, almost bony consistency, and had the appearance of a peg drove through the parts. The nerves of the cadua equina were small and flaccid, the nervous matter being almost entirely absorbed.

Neck and Chest.—The large vessels and nerves in a normal condition; the cellular membrane under the finger-marks on the sides of the trachea, condensed. The nerves of the brachial plexus looked healthy, seemed to us to be unnaturally large. The thorax being opened, and its contents carefully examined in situ, without finding adhesions, effusions or other morbid appearances, we removed the heart and lungs. The former was extremely flabby, its parietes much thinned and dilated. The pericardium contained a few drachms of serum, and the right ventricle a small clot of blood.

The anterior lobes of the lungs, greyish pink color, healthy in appearance, but the posterior ones exhibiting that form of disease called Peripneumonie des agonizans, having no doubt taken place in the last ten days. In the back and inferior portions, the pulmonary tissue resembled flesh in consistency and appearance, and though it still floated, crepitus on pressure was nearly extinct. The top of each lung was occupied by grey infiltrations, forming semi-cartilaginous masses as large as hens' eggs, and there were a few small tubercles scattered through the substance of the lungs.*

Abdomen.—The processes of the peritoneum were entirely void of fat, and, as well as the alimentary canal, which was distended by gas, but otherwise normal, reduced to diaphanous membranes—liver yellowish brown, rather small, and structure normal; gall-bladder distended by a very thin, dark green bile; left kidney normal, but the

* The tubercles were of recent occurrence, as there was no softening nor cavity, nor even yellow appearance; entirely analogous to the phtisis, by which keepers of menageries annually lose a number of animals, confinement and bad air acting as exciting causes.

right one was of a yellowish red color throughout, and its pelvis was filled with much purulent matter. The right ureter was nearly closed; spleen and pancreas normal; bladder much contracted, its parietes much thickened, and coated with reddish mucus, two or three lumps of which, the size of filberts, also floated in its cavity. The nerves of the lumbar and sacral plexus, which were also traced to the lower extremities, were less than those of the brachial, extremely flabby, and little more than empty neurilema. The most striking circumstance in this autopsy, was, the almost entire absence of fluids, the body appearing perfectly drained. I regretted much that the short time allowed, and the necessity of not disfiguring the corpse, rendered the autopsy of course imperfect.

Elias Shoemaker was about 30 years old, 5 feet 9 inches high, sandy hair, light complexion, with hazel eyes.

ART. II.—*The Use of Bandages and Cups in Uterine Affections.* Read before the Hamilton County Medical Club. By M. B. WRIGHT, M. D., Professor of Obstetrics and Diseases of Women and Children, in the Medical College of Ohio.

In compliance with a promise, given at the last monthly meeting of the Club, I have prepared a paper upon the *utility of mechanical support in displacements of the uterus, and in pregnancy*—together with a few comments upon *one of the most successful modes of treating uterine diseases.* To confine myself within necessary limits—those which have been defined by the bye-laws of the Club—my remarks must be of a very general nature.

There is no one of the several methods, adopted for the treatment of prolapsus uteri, which has received the concurrent approbation of the profession. Failure has followed failure, in such numerous succession, that many practitioners have been inclined to withhold artificial means, and to rely upon the hidden resources of nature. But we should fall short of our duty, if, in the treatment of a disease so frequent as the one before us, we ceased our efforts at invention and trial, until we had obtained almost perfection.

One would suppose, that a careful examination of the attachments and relations of the uterus, would assist us in the formation of correct views respecting the most natural and easy means of remedying its displacements. But these examinations, although conducted with a

sincere regard for truth, have led to different views of practice. On the one hand, prolapsus uteri has been attributed to a relaxed condition of the vagina, while on the other, it has been associated with want of tension in the uterine ligaments. And, again, both these causes have been considered as necessary. In the discussion of the question, respecting the most speedy and successful means of cure, it is of but little consequence which of these causes be taken into consideration, if it be admitted that *pressure* upon the fundus of the uterus increases its displacements.

Those who ascribe prolapsus uteri to a relaxed condition of the vagina, advocate the use of astringent injections. It would be running into an extreme, perhaps, to reject them as altogether useless; yet, if we rely upon them to any great extent, we must be prepared for very frequent failures. Nor should this excite our surprise. In a natural state, the circumference of the vagina is greater than that of the uterus; and astringents, capable of changing this relation, must be not only powerful, but their action should be constant and long continued. And, even then, is not the canal as liable to be shortened, as lessened in diameter? And will not this shortening tend to keep the uterus in its place of descent?

It seems to me, that it is as correct, anatomically, to say, that the uterus suspends the vagina, as that the latter supports the former, particularly, as the upper fifth of the vagina has no very strong attachments to contiguous tissues.

Formerly, it was supposed, that mechanical support could be given to the uterus in no other way than by the introduction of pessaries into the vagina. But, it will be admitted, that we have failed to reap those advantages from their use, which high authority had led us to expect. In some cases, no doubt, a pessary of proper size and well adjusted, has been of service, and it may have been a prominent agent of cure. Very often, however, patients have consented to continue a trial of them, for no other reason than because they produced less pain than that occasioned by the disease.

We need not engage in any speculations, as regards the *extent* of mechanical support which pessaries furnish. It can be reduced to mathematical certainty. The perineum, upon which the pessary rests, does not average more than one inch in thickness. The hollow center of the pessary, designed for the reception of the uterus, is not over one quarter of an inch in thickness. If we fix the length of the va-

gina at only four inches, and deduct from this the thickness of the perineum and pessary, we shall have left, of the vagina, a space, measuring two inches and three quarters, through which the uterus may descend. It is evident, then, that a pessary can do no good, except, when the prolapsed uterus is inclined to escape through the outlet of the vagina.

The invention of "Abdominal Supporters" and "Pelvic Corsets," for the cure of prolapsus uteri, is, comparatively, of recent date; and, like all new suggestions, they have their enthusiastic advocates and decided opponents. But, in the opposition, there are few from among those who have given the instrument a full and candid trial. Those who doubt their utility from theory merely, assert, that it is impossible for *pressure* upon the abdomen to facilitate the ascent of the depressed uterus. This is no doubt true. It is not claimed, however, that mere *pressure* will restore the prolapsed organ; nor should we aim at this mode of action in the application of our instruments. It is the *support* furnished the abdominal viscera, from which the greatest amount of good is to be expected. When we recollect how one portion of the intestines lies above another—how singularly they are coiled, and what little space they occupy, compared with their length, we can at once observe how nearly, and by what a moderate degree of force, the mass of intestines can be kept in its natural situation, although that force should receive a horizontal direction.

Again, it is contended, that *pressure*, applied in such a way as to force the intestines into the pelvis, will increase the descent of the uterus. This is true, also; and it is all the admission we ask, as regards one grand cause of the continuance of the disease. It is conceding, virtually, that the uterus may be depressed by the weight of the intestines. Then, will not a removal of this weight, above the brim of the pelvis, enable the uterus to maintain more readily its true position?

But why theorize upon the utility of abdominal supporters, when we can draw so abundantly from testimony and experience? Employed under our own directions, cures have been performed, and lasting aid has been acknowledged, in many cases; and we have witnessed their beneficial effects in the hands of others, under circumstances extremely unfavorable: and, although it cannot be expected that they will cure always, it is very rare that they do not impart comfort.

It is not our design in the present paper, to note the superior advantages of any one of the several instruments, which have been invented: yet, we cannot avoid urging the propriety, if not the necessity, of selecting such as will give support and a feeling of ease, throughout the entire circumference of that portion of the body to which they are applied. An apparatus, touching the body at two or three points only, will not be as agreeable as one, in whose action there is felt a more general contact; and especially, if the force of its spring cannot be graduated in conformity with the changing conditions of the patient.

According to some, the treatment of prolapsus uteri consists in the use of such remedies, as are calculated to remove that congestion, which, they say, invariably accompanies the disease. That the uterus, in its displacements, is unduly supplied with blood, I have good reason to believe: and I esteem it important, that this fact should be borne in recollection. Counter-irritation, produced and continued by the daily application of dry-cups to the loins and sacrum, will be found an important branch in the treatment of prolapsus uteri. In the incipient stage of the disease, it will accomplish cures, without any other assistance, than that, derived from abstemious living and cautious exercise.

But I wish, more especially, to call the attention of the Club, to the *utility of bandaging the abdomen in certain conditions of pregnancy.*

I am well convinced, that females suffer more than is necessary, during this most anxious and interesting period of their lives—that we can render them important service, in a vast number of cases, which are now esteemed unmanageable. My attention was first drawn to this subject, some years ago, under circumstances which I will briefly relate.

A lady, the mother of several children, supposed herself to be in labor, and I was called to her assistance. Upon entering her room, I was induced to think, from the kind and amount of her exertions, that the head of the fœtus had advanced partly through the pelvis. The usual examination corrected this opinion, but revealed a fully dilated os tincæ. Uterine contractions occurred at regular intervals, and continued during most of the night, without any perceptible effect, except an increased tension of the presenting

membranes. As morning approached, the patient became more and more composed, and, at length, she fell into a refreshing slumber, to be harassed with pain no more during the day. On the second and third nights, the same train of ineffectual symptoms was presented. At the end of this time, I became anxious to ascertain the exact period of gestation, and the probable cause of the premature contractions of the uterine fibres. Among other things, the patient stated, that the movements of the fœtus had been frequent, and apparently very strong; that they were accompanied by soreness and pain in the womb, and that, when in the erect posture, and particularly upon walking, she had experienced a sensation of great weight in the pelvis. It could not be said that she labored under an obliquity of the uterus; still, the parietes of the abdomen yielded, seemingly, to the weight of the gravid organ, and allowed it to settle, and press forcibly upon the brim of the pelvis. I was inclined to attribute the irritable state of the uterus, and consequent dilatation of the os tincæ, to a want of proper abdominal support; and I directed a female friend to encircle the body with a bandage, of sensible tightness, so as to embrace every portion of the abdominal tumor. This afforded the intended support. The patient had no subsequent difficulty in attending to her household duties, nor had she a return of pain for nearly four weeks, at the end of which time labor commenced, and ended in her speedy delivery.

It is not uncommon for pregnant females to be much annoyed by tenderness and pain in the uterus—mostly, during the movements of the fœtus. In such cases, practitioners have not been in the habit of offering any suggestions, with a view to permanent relief. The female has been advised to endure patiently, and to look to her delivery as the end of trouble.

Some have thought, that these painful sensations of the uterus, were produced by unusually vigorous actions of the fœtus; others have ascribed them to an increased sensibility of the enlarged organ. I have entertained an opinion, that a failure on the part of the abdominal muscles, to supply the distended uterus with a due amount of continued support, has rendered it not only unusually sensitive, but irritable. This opinion has been strengthened by close observation and the effects of practice. Cases have been treated successfully by bandage alone; and how is it competent to bestow aid, except by its mechanical action?

On the other hand, it may be observed, that whenever the abdominal walls are comparatively unyielding to the pressure behind—whenever their power of resistance is almost equal to the force of uterine expansion—the uterus does not possess any morbid sensibility. We may find its obtuseness of sensation, and the rigidity of the abdominal muscles, to bear a very close agreement. In support of my views upon this point, I shall offer but one case.

A female, apparently about thirty years of age, called at my office, and requested me to express an opinion respecting her situation—whether she were in "the family way," or laboring under dropsy. She stated that it had been more than seven months since her husband had gone, (where the husbands of too many unfortunate wives are apt to go,) down the river. She stated also, that she had not been sensible of any fœtal movements, such as had been felt in two previous pregnancies. When my hand was placed upon the abdomen, I observed an unusual degree of firmness and incompressibility of its parietes. In a short time, I felt the motions of a fœtus distinctly; but the female declared, that she was insensible to them. After receiving assurances of her pregnancy, she left, apparently gratified that her situation was not more dangerous. In a day or two thereafter, I visited the obstetrical ward of the Commercial Hospital, in which I found the same woman. I asked her if she wished to remain there until after her delivery. She replied, that, by the advice of friends, she was induced to ask for admission, with a view to consult the physician in attendance, and that she desired to leave as soon as his opinion could be obtained. I remarked, that, unfortunately for her, I was the physician to whom she alluded, and that, to satisfy myself, I would be glad to make a second examination. It resulted in a confirmation of my perviously expressed views. The woman doubted still. I placed the hand of the nurse upon her abdomen, during the movements of the fœtus, when she exclaimed—"you must be a fool, not to feel that, for it is like the kick of a young colt!"

To what an extent did the firmness of the walls of the abdomen, and the consequent support given the pregnant organ, in this case, render it comparatively insensible to the motions within it, is a question, which may lead to more extended and useful investigations.

Many females, during the latter months of gestation, experience a sensation of heaviness in the pelvis, and, perhaps they are unable to walk. This sensation has been attributed to some peculiarity of

structure, and for which there was no immediate remedy. But, here, as under the circumstances already mentioned, the bandage will prove of signal advantage. In most instances, in which I have advised its use, the "bearing down" has been removed, and exercise has been rendered comparatively easy and agreeable.

It is not in the erect posture only, that the size and weight of the gravid uterus, produces uneasiness and pain. These feelings are experienced by some after retiring to bed. They commence about the eighth month, and continue more or less up to the full period of pregnancy. An explanation of this, as presented to our mind, can be given in few words. When the female places herself in the position, which throws the weight of the enlarged uterus against the relaxed parietes of the abdomen, laterally, it receives less support than when resting upon the unyielding muscles in front, and at the same time upon the brim of the pelvis below. An inability to lay upon the side is a very natural result of such a state of the supporting tissues.

These are cases too, in which the profession have not offered any direct aid. They have been esteemed as a necessary consequence of pregnancy, and as admitting of no remedy, except in delivery. I could adduce many instances in proof, that this is all wrong. The relation of one case, however, must suffice.

A few days since, I complied with the request of a gentleman to visit his wife. I found her reclining upon an arm-chair, endeavoring to sleep. She had been pregnant not far from eight months. The motions of the fœtus were frequent, and to her, very strong. While upon her feet, either in standing or walking, she felt an unpleasant heaviness and bearing down in the pelvis, and about the hips. In the recumbent posture, her distress was so great, that she was unable to sleep. As a remedy, I advised, principally, the wearing of a bandage, and gave instructions as regards the manner in which it should be applied. Since the adoption of the means proposed, my patient has been exercising with more facility, and enjoying regular and refreshing sleep.

One of the common attendants of pregnancy, is "pain in the side." For the cure of this, bleeding, blistering, and a variety of other remedies, have been prescribed in vain. Indeed, so utterly inefficient have been the means employed, that one, in whose opinion the profession have relied with great confidence, has told us, in his work

upon the diseases of females, that he had long since ceased to prescribe for the disease.

Those, who have not resorted to mechanical snpport in these cases, would be surprised at the very great ease which is thus afforded. As I am, at this time, in attendance upon a female, who has enjoyed the advantages of a bandage, I shall be excused for alluding briefly to the case.

Near the seventh month of her pregnancy, she felt a pain in her right side, which in a few days increased to such a degree as to prevent sleep, and to produce some febrile excitement. The constitutional symptoms yielded readily to the prescribed remedies; but a slight local pain still continued, and in a few days it became more violent than at any time preceding. I now advised the wearing of a bandage, and gave directions respecting its application. The ease procured was speedy and perfect, and she remained free from pain until labor commenced—a period of six weeks.

I shall not express any additional views, as regards the manner in which the bandage acts beneficially, under the circumstances which have been named. Upon this point, each member of the Club must draw his own conclusions. I may remark, however, that the support given by the bandage, should be commensurate with the loss of tone in the overstretched abdominal muscles.

The few moments which remain, I shall occupy with remarks upon the last branch of my subject—viz.: *One of the most successful modes of treating uterine diseases.*

There are no diseases more interesting in their character, or more important in their results, than those peculiar to females. Much time and thought have been devoted to their investigation; yet there is much to learn respecting their pathology, and consequently, their treatment is still to undergo change and improvement. I do not intend to introduce to the notice of the Club, any new remedy, but to bespeak for one already in our hands, a large amount of attention, and to claim for it greater efficacy than is generally acknowledged.

As the diseases of females are numerous, and as they differ widely in their pathology, we would not claim a specific action for any remedy: still, there are some remedies which may be used advantageously, in all the uterine affections. At the head of these we place

DRY CUPS.—To combine the treatment of diseases of the uterus with cupping over the loins and sacrum, is not a new suggestion.

But cupping has been usually considered as one among a large number of remedies, which may, or may not, do good. It deserves, however, a more conspicuous place than this. It is the remedy upon which we may rely with great confidence, in the commencement of disease; it is the remedy of speedy and powerful influence during the progress of disease; it is valuable as a preventive at the close of disease. I may be charged with using more of the language of enthusiasm, than of deliberate thought. But, before you require me to defend myself against such a charge, give the remedy a more extensive and severe trial. Try it in inflammations of the uterus; try it in leucorrhœa; try it in gonorrhœa; try it in derangements of the menstrual function; try it in threatened abortion; try it in long continued hemorrhage, succeeding a premature expulsion of the ovum.

I would be glad to offer a few remarks upon each one of these diseases, separately; but time will not permit me to do so. As dysmenorrhœa, gonorrhœa, and leucorrhœa, are diseases of such frequent occurrence, you will allow me to devote a little more attention to them.

LEUCORRHŒA, I may repeat, is an affection from which but few adult females have been exempt. In most instances, it is so mild as not to require the aid of a physician; at other times, the most experienced of the profession are defeated in their best efforts of skill.

In one case, astringent injections will abate, and, perhaps arrest leucorrhœa—while in another, they will as certainly add to the disease: and internal remedies, of high reputation, are far from being uniform in their effects.

I have nothing to urge in support of the views, entertained by some, that leucorrhœal discharges proceed exclusively from the uterus, nor of the views presented by others, that these discharges may issue, either from the uterus or vagina. I have been induced to believe, however, that the pathology of this disease is not well understood. Appearances discovered after death, have excited a strong belief, that, to the influence of the ovaria, in many cases, are we to attribute a continuation of this disease. Instead of calling it a primary affection, it should be viewed as one of secondary occurrence—probably as a sanative effort of nature. I have placed in my cabinet

several specimens of ovarian disease, all of which were accompanied by leucorrhœa.

Theoretically considered, this view of the subject will not be met by any very pointed objections. Leucorrhœal action, not unfrequently bears a close relation to the catamenial function. It occurs periodically, either preceding, or following the menstrual discharge. If menstruation be dependent upon ovarian influence, as is most generally believed, why may not leucorrhœa be produced by this same cause?

In the cases just mentioned, the usual remedies for leucorrhœa could not have been productive of good: they may have acted injuriously. The most direct way of conveying curative impressions to the ovarian and uterine structures, and the most speedy means of exciting new actions in them, would seem to be, through the same means. The effect of treatment strengthens this idea. A discharge from the vagina, which has continued for weeks and months, in opposition to the usual medicines, has yielded speedily to the daily use of dry-cups to the sacrum. In cases where they have failed to cure, they have prepared the way for an efficient action of other remedies—even those remedies, which, before, exerted no beneficial influence.

I will not venture so far, as to recommend an exclusive reliance upon dry-cups in the treatment of gonorrhœa in females. I have used them alone, however, in the disease, with a view to test their temporary action, and the effect has been, a lessening of the discharge, both in quantity and consistence. Every city practitioner knows, that it is exceedingly difficult, nay, impossible, to cure gonorrhœa of long standing in prostitutes, by the more common remedies. The disease is perpetuated, or speedily reproduced by venereal indulgence, so that four out of five are capable, at all times, nearly, of contaimnating those who submit to their embrace. The various medicines they take, moderate the disease for a time, but they ultimately cease to act beneficially—when the physician is called upon to treat just such a case, as I wish the members of the Club to bring before their minds. And, let me ask, how shall we treat it? Shall we say, that the old remedies failed, because they were not properly given, and that we will try them again? For myself, I can answer, that, from past experience, I would commence with the

daily use of dry-cups to the sacrum, and consider such other remedies as might be suggested auxiliary to them.

But, the salutary effects of this mode of treating the disease, are not confined to prostitutes. Of this, the following may be given in proof.

I was requested to visit a lady, suffering with gonorrhœa. It was stated, that the disease had been communicated to her eighteen months previously; that, during this long period, she had been taking medicine constantly; that she had visited the Eastern cities, where she had obtained advice from some of the best practitioners, and that she had been subjected to various modes of treatment. I found her feeble, reduced in flesh, despondent in spirit, with much local pain, and with a copious yellow discharge from the vagina. A general plan of treatment was advised, which it was hoped would prove successful. I was disappointed. It produced little or no effect, although continued for several days. Cupping was then added to the other treatment. From this time, the disease gradually subsided, and in a few weeks, the lady was in the possession of health and cheerfulness.

A remark or two, respecting the manner in which the cups can be made to produce their best effects, must conclude this paper. I shall not engage in a discussion of the question, whether cupping with, or without scarification, is most advantageous. It is clear to my mind, that the advantages from cupping, are not derived from loss of blood, nor from the *amount* of local impression. As an example, a case of pleuritis was treated by bleeding, by the use of calomel and the tart. antimony, and by blisters, without any sensible diminution of pain or difficulty of breathing. Dry-cups were then applied, in six or eight places, around the blistered surface, in quick succession, so that all had ceased to act at the expiration of an hour. Under the influence of the first cups, the pain, upon inspiration, gradually abated, and in a few hours it was entirely gone. To all external appearance, the action of the blister greatly exceeded that of the cups, while the ultimate effects were directly the reverse.

Some of our friends have told us, that they have resorted to cups occasionally, during the treatment of uterine diseases, but, that their effects did not excite any special consideration. The cause of failure may be fonnd in this admission. An *occasional* use of the cups is not

enough. They should be applied daily or tri-weekly, according to the activity or persistence of the disease.

I hope the foregoing observations will not be construed into an opposition to all other remedies, which have been recommended in the treatment of the several diseases of the uterus. No judicious practitioner, whatever may be his partiality for any one mode of treatment, will neglect those remedies, which, upon general principles, may be demanded.

ART. III.—*Simulated Phthisis Pulmonalis.* By THOS. D. MITCHELL, M. D., Professor of Materia Medica and Therapeutics in Transylvania University.

The following cases appear to me to be of exceeding interest, especially to the young practitioner, and I therefore send them for insertion, if you please, in the *Lancet.*

The first is taken from the *Annals of Medicine,* (Eng.,) vol. 1st, page 371, and is entitled "*Symptoms of Phthisis Pulmonalis,* induced by an iron nail, remaining fifteen months, in the stomach."

"A girl, in the fourth year of her age, in February, 1793, swallowed by accident an iron nail, nearly two inches in length. In its passage, it wounded the œsophagus, which bled freely, and a soreness was felt there for some time. In about a fortnight, a trifling cough supervened, with thirst and general fever. This fever had remissions and exacerbations; but the cough and thirst became incessant, with occasional sickness and pain in the stomach and bowels. In the winter, the child began to expectorate much phlegm, particularly in the morning. This was invariably attended with distressing pain in the region of the stomach. Her appetite, however, during the remissions of the fever, was somewhat improved, and she gradually recruited strength a little. But, during the fifteen months for which the nail was present in the stomach, her growth was almost entirely suspended.

"On the 5th of May, 1794, I was consulted on the case, under the impression that worms had an agency in it. Not aware of all the former circumstances, I prescribed medicines accordingly. The child, at the time, seemed to be in the *last stage of a decline, having night-sweats and a hectic fever.*

"On the 7th of May, at noon, the child was seized with retching, and, after throwing up much blood with some violence, the nail came

up, enveloped in blood and mucus. It was covered with a considerable quantity of rust, particularly at the point. After the expulsion of the nail, every bad symptom gradually disappeared, and the child regained her former health."

The reporter of the above case erred, in my judgment, in locating the nail in the *stomach.* It was somewhere, no doubt, in the chest, and most likely in some part of the *bronchial tubes.*

The next case is taken from the *Edinburgh Medical Essays*, vol. 2d, page 115, and is entitled, *A Phthisis, cured after coughing a bone*—by Mr. Thomas Arnott, Surgeon in Cowper.

"David Hedderwick, a shoemaker, strong and healthy, aged 30, began, April 28th, 1773, to complain of difficulty of breathing, cough, want of appetite, and a straitness or lump about the upper part of the sternum, being at the same time feverish. These symptoms became worse, in consequence of wading in a river, with some fishermen. He was bled and vomited; the sensation of the lump went away, but the other symptoms remained, and he had stitches in his side, his flesh and strength decaying.

"I was called to him on the 23d of May. His symptoms were as just now related, with a whizzing sometimes in his breathing, and a hectic pulse. His wife telling me that his breath had often a very bad smell, I let twenty ounces of blood, which was very sizy. Next day, I gave him a vomit, and then made him continue the use of balsamics and pectorals, which made his cough and breathing easier, and his breath less fœtid; but the fever, thirst, &c. still continued.

On the 28th of May, all his complaints increased, and I was obliged to bleed him twice more, which made his stitches milder: otherwise his symptoms continued, and he had great pain at the pit of the stomach when he coughed. I continued the pectorals, and repeated the vomit, with the addition of some vinegar of squills; but, though his breath was less fœtid, he became worse, was confined to his bed, and was delirious.

June 2d., he had a copious sweat, without relief; June 3d, the cough was very violent from 6 to 9 o'clock—when, in a severe fit of coughing, he threw up the bone, herewith sent. You see it is about the size of a hazle-nut, and very spongy. It was covered with a bloody stuff, and was very fœtid. Immediately after this bone, he brought up a large spoonful of very fœtid pus, mixed with blood. His

symptoms quickly became milder, only his stomach was weak; and he recovered daily, and is perfectly well."

The location of the fragment of bone, in this case, may have been, and most probably was, very similar to that suggested in the first case.

The next case will be given from recollection, as I had it from a distinguished practitioner, who was for some time, the medical attendant. It occurred not far from the city of Lexington, some ten or twelve years ago.

"A man, previously in good health, was seized with all the incipient symptoms supposed to denote an attack of pulmonary consumption. He could point to a spot near the top of the sternum, as the seat of his chief distress—labored under cough, night sweats, &c., &c. He remembered to have accidentally swallowed, some time before, a small leaden bullet; but as it caused no uneasiness at the time, he forgot the occurrence. After unavailing efforts to restore him, he was sent to a tropical region, perhaps to Cuba, where he continued for several months, but unimproved. He returned home, more feeble than he left it, and expected soon to die. One day, not long after his return, in a fit of severe coughing, something was thrown out of his mouth with such violence, that its fall on the floor arrested the attention of those in the room. It proved to be a leaden ball, somewhat corroded, but no doubt, the identical one swallowed many months previous. Very soon after this occurrence, the patient began to improve, and soon recovered his former health."

In all the cases, above detailed, it is quite manifest, that all the symptoms, supposed to indicate an incurable *phthisis pulmonalis*, were the result of local irritation, set up by the presence of a foreign body, in some spot in the course of the bronchi. The disease was therefore not organic, but purely *sympathetic*, as the restoration of the patients rendered obvious. The uses of mediate and immediate auscultation were then unknown, or unpracticed; and, as a matter of course, the diagnosis rested entirely on the catenation of symptoms. There is, however, in the *London Lancet* for February, 1843, page 439, a case, of which it is affirmed, "that pectoriloquy on the right side of the chest, indicated the existence of a cavern, *supposed* to be about the size of a large apple. The history of this case is substantially, thus:

"A man, forty years old, in the act of drinking some liquid, swallowed with it a piece of wooden spoon, which at first caused symptoms

of imminent suffocation, succeeded by violent coughing, that only gradually subsided. He had severe stitches in the chest, fever, and general distress, for which bleeding, low diet, &c. were prescribed. On the 9th, purulent matter was discharged, and the pulse and breathing became more frequent. The strength gradually decayed, and the feet became œdematous. Such was the emaciation of the patient, that all antiphlogistics were laid aside, and tonics substituted. His appetite improved, and he indulged so freely in the good things of the table, on one occasion, as to induce active vomiting. In the efforts to vomit, he experienced severe pain in the right side, and the violence of the cough augmented. In the fit of coughing, a hard body was discharged from the lungs, about the size of a hazle-nut, which proved to be the same that he had swallowed, as before mentioned. From this period, all untoward symptoms began to disappear, and the man got well."

Although the extract, published in the Lancet, (the original case is in a German Journal,) does not inform us, there can be no doubt, that the patient was regarded as in a hopeless condition, especially after the revelations of the auscultatory examination, noticed above.

These cases, and others, of a like character, should be known to all practitioners, but more especially the young and inexperienced. Their practical application will occur to every reflecting mind.

CLINICAAL REPORTS AND CASES.

ART. IV.—*Clinic of* PROF. HARRISON, Commercial Hospital, Cin. Cases of Rheumatism, with Remarks on the Varieties and Modes of Treatment of that Affection. Delivered before the Class attending the Summer Lectures.

GENTLEMEN:

I will call your attention to-day to a very common, and often a very intractable disease—a disease, not in its ordinary modes of attack fatal, but becoming so from its extended action on some of the vital organs. Allusion is made to Rheumatism, of which I now show you four cases.

CASE 1. This man is affected, as you perceive, with enlarged knees: he has had the disease two months, and there now exists an

effusion into the capsular ligament, and enlargement of the bursæ mucosæ, accompanied with but slight immobility of the joints, and with but little pain. He has been cupped by a German barber several times near the knee joints, and has taken no medicine of an active character. I have put him on the use of iodide of potassium, three grains three times a day, in a half an ounce of the syrup of sarsaparilla. You see that his knees are stained with iodine, the alcoholic solution of that article having been freely applied to the skin, and the joints have been well bandaged. By these topical means, we expect to remove the tumefaction, and, by the internal administration of the iodide of potassium, an alterant influence being exerted, the affection will be, as we hope, permanently removed.

CASE 2. Here we have a poor fellow affected with a protracted rheumatic inflammation of the wrists: they are quite incapable of motion, from the deposition of lymph about the joints. The disease has lasted about sixteen months, and has, besides the wrists, localized itself in the ankles, in a slight degree, and in the big toe of each foot in a rather more severe manner. This man is taking eight drops of Fowler's solution, with half a drachm of tincture of guiacum, three times a day. The alcoholic solution of iodine has been freely applied to each wrist, and they have been well bandaged for several days. He is improving.

CASE 3. Here is an instance of lumbago, with sciatica. This man is seventy-one years of age, bent, as you perceive. He bears his age well. He has had the disease for eighteen months, and is now rendered quite lame by it. The pain is in the lumbar region of the spine, and along the course of the sciatic nerve down to the foot. He is using a stimulating application, composed of powdered cantharides and spirits of turpentine; besides, he takes a fourth of a grain of nux vomica, the same of camphor, and one fourth of a drachm of tart. emetic, three times a day.

CASE 4. This patient has the same form of the disease as that just described. His left leg is quite contracted. He has been blistered over the trochanter major of the left side of the body, and is taking thirty drops of the tincture of colchicum, and thirty drops of the wine of antimony, three times a day. He has been freely purged

repeatedly, with cremor tartar and jalap, by which his symptoms have been considerably alleviated.

What is rheumatism, and what is its appropriate treatment?

First, it admits of a three-fold division, into rheumatitis, or acute inflammatory rheumatism; rheumatagra, or sub-acute rheumatism, and rheumatalgia, chronic, or neuralgic rheumatism: Second, it is composed of two pathological elements, the vascular and nervous: Third, it may be constitutional, or local: Fourth, it is found attacking the joints, in the form of articular or capsular rheumatism; it is seen invading the muscles, under the muscular form of the affection; the nerves are attacked by it, constituting the neuralgic variety: And lastly, the periosteum may be the seat of the malady, and then we have periosteal rheumatism.

Ordinarily, rheumatism is not a grave malady; but, with some of its complications, it constitutes a severe and dangerous disease. Pericarditis, and and endocarditis, may arise in the course of the attack of rheumatism, either by *extension* of the original morbid action, or by a *metastasis* of the inflammation of the joints.

Rheumatitis, or acute inflammatory rheumatism, is characterized by full, strong pulse, furred tongue, hot skin, bedewed with perspiration, severe pains in the larger joints, confined state of the bowels, sparse, high colored urine, with entire freedom of cerebral disturbance.

The treatment, in this constitutional form of the malady, is blood-letting, tart. emetic, and purgatives. From twenty to twenty-five ounces of blood should be abstracted, in a full stream, from the arm, every day, or every other day, till a sensible abatement of the pain and fever is induced. The pulse is no criterion of the necessity of a further loss of blood, for it continues full aud strong, even after vascular depletion has been pushed to the greatest justifiable extent. Neither are you to take the the cupped and sizy aspect of the blood, drawn from the patient, as a safe rule by which to regulate the treatment, as far as the lancet is concerned.

Local remedies are of no avail in acute rheumatic fever; they should be postponed till the disease assumes a subdued form.

In the sub-acute form of the disease, moderate depletion by cups to the part affected, the application of blisters, or the use of the following, will be advantageous.

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℞. Tinct. stramonii, ʒi; tinct. cantharides, ʒij; spts. turpentine, ʒss; ol. olivarum, ʒij: M.

The joints are to be freely lubricated, night and morning, with the above: Or, you may apply the following:

℞. Camphor, ʒij; tinct. opii, ʒss; tinct. nucis vomicæ, ʒij; alcohol, ʒij: M.

Calomel, followed by Epsom or Rochelle salts, may be with great utility administered in both of the above forms of the disease. The combination of colchicum, salts and tart. emetic, with morphine, as in the following formula, we have found a very useful prescription in sub-acute rheumatism.

℞. Sal Epsom, ʒij; tart. antimon., grs. ij; vin. colchici, ʒss; morphine, grs. ij; water, ℥vj.

A table-spoonful of this mixture is to be given four times a day, so as to maintain a soluble state of the bowels, and free renal secretion.

In rheumatalgia, the iodide of potassium, or arsenic, or a combination of bark, sulphur, cremor tartar, and guaiacum, may be employed. The ammoniated tincture of guaiacum is a remedy long in use, in both sub-acute and chronic rheumatism.

When the disease assumes a paroxysmal form, two, three, or five grains of quinine may be given every two or three hours, to anticipate and arrest the onset of the pain.

The ointment of veratria, with belladonna, we have found very useful in this form of the disease. The following is my method of using it.

℞. Veratria, grs. xvj; ext. belladonna, ʒij; lard, ℥ij: M.

Apply the ointment twice or thrice a day to the seat of the pain.

To sum up our governing pathological views and indications of treatment, as it respects rheumatism:—It is a disease of vascular excitement, and also one of nervous irritation. The indications of treatment are—to abate the abnormal vascular action—to act on the secretions, and thus reduce the vascular activity, and restore the equilibrium of the system, deranged by the disease—to allay morbid irritability, and, by counter-irritation, create a revulsive action. If pericarditis arises in the course of the disease, local depletion by cups or

leeches, a blister over the region of the heart, and the free employment of calomel and tart. antimon., must be relied upon to arrest this extended, or *metastatic* inflammation. Endocarditis frequently entails on the patient a more incurable form of cardiac disease than pericarditis. The aortic and mitral valves may become permanently deranged in their structure by inflammation of the lining membrane of the heart.

ART. V.—*Clinic* of Professor MUSSEY, Commercial Hospital, Cincinnati—May 29, 1843.

PLASTIC OPERATIONS.

It is my purpose now, gentlemen, to make some few remarks upon Plastic operations—a department of surgery which, until within a few years, has excited no very general interest with the profession.

The art of restoring lost parts is said to have had its origin in India, where mutilations by law, as a penalty for crime, have been practiced from a remote antiquity. This art was concealed with great care, and, whether it found its way into Egypt, as reported by Galen, or whether it was known at all by the Greeks or Romans, does not clearly appear. In the sixteenth century, Taliacotius, an Italian physician, distinguished himself by his skill in repairing mutilated noses; but the operation was rarely performed by other European surgeons, until within the last half century. Mr. Carpue, an English surgeon, thirty or forty years ago, drew the attention of the profession to this subject by the success he met with in some operations upon the nose. More recently, Germany and France have contributed much to this department of the profession, while England has not been an idle spectator of the progress made by their neighbors. Graefe, Dieffenbach, Zeis, Dupuytren, Velpeau, Roux, Delpech, Liston, with some others, by their successful labors, have given to the profession much valuable information, respecting the relief, not only of native deformities, but the restoration of parts lost, or rendered useless or hideous by casualty or disease. Our own country, too, claims to have done something worthy of mention in this province of our art. Some fifteen or twenty years ago, a surgeon near Boston,

in an attempt to form a new nose, was partially successful. The patient was vain enough of the lump that had been added to his face, although it looked as much like a wen, as it did like a nose. Within the last eight or ten years, Dr. J. M. Warren, of Boston, has accomplished some brilliant operations; and more recently, Drs. Pancoast and Mutter, of Philadelphia, have done themselves great credit in plastic surgery.

From the time of Taliacotius to that of Carpue, and even later, the epithet, *Taliacotian*, was applied to the operation of repairing the mutilated nose; and, until a period still more recent, plastic surgery was almost exclusively limited to this single operation. The nomenclature of Zeis, is, I believe, more generally adopted, which gives a term, made from two Greek words, the one signifying to mould, or form, while the other is the name of the part formed or restored. Thus, we have *rhinoplasty* for these operations upon the nose, *cheiloplasty* for those of the lips, and *blepharoplasty* for the eyelids.

The patient, Mary Roney, æt. 40, who has been just before you, had, as she alleges, when a small girl, a burn upon her face, which left a bad scar and contraction of the right cheek and lower eyelid. This threw the eye constantly a little open, giving a hideous stare to the expression, exposing constantly to the air a part of the lower ocular conjunctiva. On the first of last month, April, I attempted to remedy this deformity by an operation, which some of the gentlemen present had the opportunity of witnessing. The cicatrized and contracted skin was cut through, and a portion of it dissected out. The tarsal edge of the lid, not having been destroyed, but only bent and puckered at the middle, was raised up and straightened, and allowed to remain. A patch of skin from the temple, larger than the space exposed by the removal of the cicatrix, was dissected up, and still attached by a pedicle a quarter of an inch in diameter, was applied to the exposed surface, and secured by stitches at the distance of half an inch from each other. Adhesion took place, and in a few days the patch was firmly implanted in its new situation. The pedicle adhered at its upper edge, but formed a small pouch at its lower edge by projecting over sound skin. The cuticle of this was removed by nitrate of silver, and the whole pedicle, without being divided, in a short time was identified with the surrounding integument. A difficulty still

remained. The skin taken from the temple, being considerably thicker than the natural skin beneath the eye, gave a clumsy appearance to the new eyelid. This has been obviated by keeping a compress bound upon it for some weeks. Now the new skin is on a level with the surrounding parts, and applies itself very well to the eye. The color, you perceive, of the new eyelid is paler than that with which it is connected at its lower and nasal margin, and it is doubtful whether it will acquire the precise hue of the scarred and bronzed surface in its neighborhood, without the aid of a little rouge, or some other pigment, which we should pardon Miss R. for resorting to, when she comes into the world again to exhibit her new and placid physiognomy.

The case of cheiloplasty in the person of John Barnes, who was operated upon for schirrus of the whole lower lip, last October, is familiar to most of you. It was reported in a late number of the Lancet. Barnes has just been re-admitted into the Hospital, not on account of the new lip, for that remains sound, and serves well to retain the saliva, and to aid in the articulation of labials, but for an ulcer below the angle of the jaw, which is the sequel of a rapid induration at that point. The ulcer has a malignant appearance, and the induration at its base seems to be rapidly extending. The prognosis is unfavorable.*

Some few of the gentlemen present recollect the case of Rhinoplasty we had in this Hospital a little more than four years ago. John Cotter, about 30 years of age, was the patient. He had lost the whole of his nose by ulceration, two years before. After two weeks preparation upon a farinaceous diet, he underwent the operation, which consisted in raising a flap from the upper arm, attaching it to the face by the interrupted suture, and securing the arm by Graefe's apparatus. The flap adhered well, and was detached from the arm in ten days, and a tolerably good substitute for a nose was the result. But the ensuing winter, in the State of Indiana, Cotter, addicted as he had long been to liquor, took too much, lay out one night and froze off his nose. The following spring he came to this city and re-entered the Hospital. Another attempt was made to supply the loss by a flap from the arm. This was unsuccessful; partly I believe from his not

* Barnes is still in the Hospital, July 8th—the induration and the ulcer considerably extended.

being duly prepared for the operation, and partly from the arm not having been kept secured against all motion. The following winter he came again to the Hospital for another trial, and after having a preparation for several weeks, objected to undergoing the operation in presence of the class of students at that time in attendance, left the Hospital and took private lodgings.

The operation was performed early in February, 1841. The flap was taken from the forehead. The next day the parts appeared well, but on the third day the face was attacked with erysipelas, and almost one vertical half of the flap sloughed, while the rest adhered. After this had become sufficiently consolidated, I took another flap from the forehead and attached it to the first, near the median line. This adhered throughout, and the whole in due time became sound, with the columna firmly implanted upon the base of the upper lip.

It was not until some weeks after the operation, that I was able to explain the accession of erysipelas on the third day, and which had well nigh frustrated the object altogether. From a member of the family, I learned that the patient, on the day of the operation, and the day following, drank spirit somewhat freely, furnished him by his old companions, whose sympathies were manifested in a way which he knew not how to resist. After the completion of the cure, he was induced to sign the pledge of total abstinence from all intoxicating drinks, which pledge I believe he has faithfully kept. He called on me a few weeks since, and assured me that he had not in a single instance violated his temperance engagement, which statement the appearance of his face confirmed. His nose is sound, sufficiently voluminous and prominent, and looks enough like a nose to pass respectably; for, amidst the endless diversity of form in this important feature of man's face, almost no variety can be imagined, which has not its prototype somewhere in the multitude.

ART. VI.—*Remarks on Milk-Sickness.* By JOHN CRAWFORD, M. D., of Portland, Fountain Co., Inda.

To the Editor of the Western Lancet.

SIR: I wish to communicate to the profession, through the medium of your valuable Journal, a new and successful method of treating the severe and interesting disease, usually called milk-sickness.

I have been practicing for the last fourteen years, in a neighborhood where this disease yearly prevails: consequently I have had considerable experience in its treatment. During the first seven years, I followed the usual practice in treating it, and with the usual ill success. It is generally granted, by all who have had an opportunity of treating milk sickness, that the grand indication is to produce early and active evacuations from the bowels. But here is the great difficulty; for, notwithstanding the free administration of the most active cathartic remedies, the bowels, in severe cases, often fail to respond for several days.

Keeping the cathartic indication in view, I was induced to make trial, seven years ago, of large doses of tart. antimon., and, I am happy to add, with very flattering results.

The first case in which I used it, was that of a robust farmer, who had had a severe attack of the disease the year previous, for which he had been actively treated—venesection, croton oil, sub-mur. hyd., &c. having been employed. His bowels, however, were not moved for three days. In short, he made a very narrow escape with his life. I was called to see him at the commencement of his recent attack, which he states was as severe as his former one. I gave him about five grs. of tart. antimon. alone. In less than two hours, his bowels were freely moved. I followed up the effect with sub-mur. hyd., &c., and next day my patient was quite well. Since that time I have treated upwards of fifty cases in the same way, and all with equal success—not having lost a single case—whereas, according to the old treatment, I lost nearly one case out of every three. I made known my mode of treatment to my neighboring practitioners, who have reported the same favorable results. Whether tart. emetic, administered in an enema, would produce the same effect, I am unable to say, never having tried it in that form. I purposely refrain from

theorizing on the disease at present, as I intend to trouble you with my *speculations* on its nature and cause toward the close of the year, when I shall be able to tell you the result of various experiments I intend to institute regarding it this summer. I trust I have said enough concerning my mode of treatment to induce my brethren, practicing in sections of the country where the disease prevails, to give it a fair trial, and to report the result. I would only remark, in conclusion, that I consider the time close at hand, when both its nature and cause will be fully explained.

Yours Respectfully.

JOHN CRAWFORD, M. D.

BIBLIOGRAPHICAL NOTICES.

ART. VII.—*A Practical and Theoretical Treatise on the Diagnosis, Pathology, and Treatment of Diseases of the Skin*—arranged according to a natural system of classification, and preceded by an Outline of the Anatomy and Physiology of the Skin. By ERASMUS WILSON, Lecturer on Anatomy and Physiology in the Middlesex Hospital School of Medicine, and Author of a System of Human Anatomy, with Illustrations. Philadelphia; Lea & Blanchard: pp. 370: 1843.

Few practitioners of medicine have not experienced difficulty in the diagnosis and treatment of diseases of the skin. Although these affections may be examined by the sense of sight and touch, yet their exact characteristics are often obscure, and the treatment precarious. This applies to the acute as well as the chronic—to the constitutional as well as the local. Why is this so? It depends, in a great degree, on the nosological arrangements that have been adopted by different systematic writers. Hippocrates divided diseases of the skin into *constitutional* and *local*. Galen, observing that skin affections manifested a predilection for particular localities of the surface, formed a *topographical* system, which was afterward modified so as to embrace

color as a distinctive feature. Others distinguished cutaneous affections according to the external appearances.

But the system which has received the greatest amount of approbation, is that of WILLAN. This classification has with propriety been termed *artificial*, because it is based upon certain resemblances and external signs, by which the diseases are approximated in classes.

The system of WILLAN, however, is open to numerous objections; and, to obviate these, Mr. Wilson has founded a classification which he terms the *Natural System*. This arrangement rests upon the anatomy and physiology of the skin, and consequently must lead to a sound system of cutaneous pathology. Four primary divisions are made: 1. Diseases of the Dermis; 2. Diseases of the Sudoriparous Glands; 3. Diseases of the Sebaceous Glands; 4. Diseases of the Hair and Hair-Follicles. Secondary divisions are formed of the preceding, embracing the numerous family of cutaneous affections, the whole being plain and intelligible, and based upon *pathology*, which should always constitute the foundation of all systems of nosology.

We would recommend Mr. Wilson's work to all who wish to study diseases of the skin—and who does not? It may be obtained in this city of Desilver and Burr, 112 Main st.

ART. VIII.—*Essays on the Sources and Mode of Action of Fever.* By WILLIAM DAVIDSON, M. D., Senior Physician to the Glasgow Royal Infirmary, etc.; and ALFRED HUDSON, M. B., F. C. D., Physician to the Navan Fever Hospital. Philadelphia: Ed. Barrington and Geo. D. Haswell; 1843; pp. 178.

Part I. of the work comprises the essay of Dr. Davidson. His researches are directed to the sources and mode of propagation of the continued fevers of Great Britain and Ireland. Of these, he enumerates the following: 1. *Typhus*; 2. *Febricula*, or *Simple Fever*; 3. *Gastric*, or *Intestinal Fever*. Some confusion is created in consequence of the author failing to recognize a difference between *typhus* and *typhoid* fever; and the student will find himself perplexed in many instances, to determine whether the observations have been drawn from one or the other of these modifications of fever.

Dr. Davidson evinces an intimate acquaintance with the subject which he treats, and embodies in his essay a large amount of valuable matter. The subject is one of intrinsic interest, and will well repay the student for the time and labor devoted to its examination.

Part II., by Alfred Hudson, M. B., is an inquiry into the sources and mode of action of the poison of fever—a subject that has been much *talked* about, though not always very greatly elucidated. Those who have not already examined these Essays, will find in them matter of value. The work may be obtained in this city of Desilver & Burr, 112 Main st.

ART. IX.—*A Practical Treatise on the Management and Diseases of Children.* By RICHARD T. EVANSON, M. D., Professor of Medicine in the Royal College of Surgeons, Ireland, and HENRY MAUNSELL, M. D., Professor of Political Medicine in the Royal College of Surgeons, Ireland. Second American Edition, from the fourth Dublin Edition. With Notes, by D. FRANCIS CONDIE, M. D., Fellow of the College of Physicians of Philadelphia, Member of the American Philosophical Society, etc. Philadelphia: Ed. Barrington & Geo. D. Haswell; 1843; pp. 372.

The work before us has received so many marks of respect from the profession, that its value cannot now be doubted. It was first offered to the public in 1836. At the present time, a period of little more than six years, we have before us the *second* American, from the *fourth* Dublin Edition. The authors possessed the most ample opportunities for cultivating this department of medical science, and well have they improved it.

The able American Editor, Dr. Condie, has made a number of valuable additions to the work, aspecially on *Gangrene of the Mouth*, and *Cholera Infantum*. Believing the work to combine a proper conception of the *principles*, which are the basis of this department of practical medicine, and the authors having had ample opportunities, which have been well improved, of making applications of these principles to individual cases and forms of disease, and that the whole has been faithfully and ably executed, we take great pleasure in commending it to the notice of the profession.

For sale by Desilver and Burr, 112 Main st.

MISCELLANEOUS SELECTIONS AND INTELLIGENCE.

1. *Small Pox, Measles, &c.*, were treated with success, by the celebrated Heister, a century ago, by what is called the cooling, or cold regimen.—*Vide his Med. Observations.*

T. D. M.

2. *Rheumatism* was cured by the application of the bandage, in Ireland, in 1817.—*Transactions of Asso. Physicians, Ireland*, vol. I., p. 174.

T. D. M.

3. *Scarlatina Anginosa*, (epidemic,) was treated with very general success by the use of port wine and acidulated bark, in England, many years ago. The disease was generally attended with delirium. *Memoirs of London Med. Society*, vol. IV., p. 284.

T. D. M.

4. *Pomgranite* was celebrated as an anthelmintic in the days of Celsus, (14th century.) A decoction of the small tendrils of the pomegranite is named as a remedy for tape-worm.—*Vide Lee's Celsus*, vol. I., edit. 1831.

T. D. M.

5. *Case of Strangulated Intestine, from Rotation of the Sigmoid Flexure—with Remarks.* By Jacob Bigelow, M. D.—The Hon. Hugh S. Legare, Attorney-General of the United States, arrived in Boston, on Friday, June 16th, and, although fatigued by a hasty journey from Washington, was well enough to make calls on some friends in the evening. At 1 o'clock in the night, he was seized with frequent abdominal pains, resembling those of colic, and called Dr. Thomas, of Washington, then lodging in the same hotel, to his

assistance. During the remainder of the night, and the whole of the next day and night, he was affected with pains alternating with intervals of ease, without constitutional disturbance, and agreeing in character with those of previous attacks, to which he had been liable for more than two years, the last occurring in March preceding. Various laxatives and enemata were resorted to, together with counter-irritants, but without removal of the constipation and pain.

Early on Sunday morning, I was called to meet Dr. Thomas, at Mr. L.'s lodgings at the Tremont House. I found him then suffering frequent paroxysms of pain, which he referred mostly to the lower abdomen, without distinction of side, but which sometimes mounted above the umbilicus. The pulse was at this time 60, the skin natural, with no tenderness on deep pressure of the abdomen in any part, no meteorism, no nausea. Opiates and other remedies were proposed to him, but declined, on the ground that Laxatives and mechanical means had relieved his former attacks. During the morning, two doses of Epsom salt, with infusion of senna and tincture of hyocyamus were given, with frequent enemata, both aqueous and stimulating, without effect. The pains did not increase, but a troublesome degree of tenesmus made it necessary to suspend the enemata. Elastic tubes were passed throughout the rectum, and water injected through them in the manner recommended by Dr. O'Beirne, but they could not be carried into the sigmoid flexure. His strength meanwhile remained good, and his general condition stationary.

At 6 P. M., he was removed without difficulty to the house of a friend, where he was immediately put into a warm bath of 106°, from which he expressed great relief and satisfaction. He was then put to bed, and 60 drops of laudanum were administered in two doses. In about an hour, the relief not being perfect, 40 drops of Munn's elixir of opium were given, soon after which he fell into a quiet sleep, and so remained for about three hours. Conditional directions were given for repeating the opiate, but it was not found necessary till near morning, when he took 20 drops of the elixir, and slept an hour or two more. On Monday morning at 5 o'clock, I found him more comfortable than before—skin temperate, pulse 64, abdomen not tender, but beginning to be tympanitic. Castor-oil and senna, with hyocyamus, were now given and retained, and enemata, fomentations and sinapisms were resumed as before. The pain did not return with the same severity as before, but meteorism rapidly increased,

with restlessness and tenderness on pressure. At 9 A. M. the pulse was 80, and before 12 it was 100. The face of things having become very serious, Dr. Thomas being absent from the city, I requested farther consultation, and Dr. Warren was called in. The abdomen was freely leeched and rubbed with croton oil. Various ineffectual attempts were made to overcome the obstruction of the intestine by the introduction of various tubes, by inflation of the rectum with a bellows, and by the tobacco injection administered twice. Under this last remedy he said he felt excited, was stronger, but more agitated, and his pulse rose from 130 to 140, with increased force. Each injection contained half a drachm in infusion, and was retained nearly half an hour, without narcotism or prostration. During the night the patient was restless, retaining his muscular strength in a considerable degree, and frequently getting up to the close stool in the belief of an approaching evacuation. There was never any vomiting nor nausea; the mind was clear, and the natural decisive tone of voice continued. He complained occasionally of a sense of burning at the epigastrium and upper abdomen. About half an hour before death, he got up without assistance, and on lying down asked urgently for water. On receiving it, he pushed it away, saying it was filled with ants. A white paper was then shown him, to which he applied the same remark. On being told it was an illusion of sight, he put forth his hand for the glass, but missed it, said a few words incoherently, leaned back, and expired quietly at half past 5.

Autopsy seven hours after death.—Externally the limbs were very rigid, and there was much lividity about the head and back. The abdomen was greatly distended. On laying it open the cavity seemed nearly filled by the sigmoid flexure of the large intestine, which extended across the abdomen into the right hypochondrium, and was in a state of such distension, that its external circumference was in one place fifteen inches. It had a dusky green color, as if from commencing gangrene, but there seemed to be no softening, nor diminution of the natural polish. The two extremities of the flexure connected with the colon above, and rectum below, were felt to be twisted together about the mesentery as an axis, into a firm cord or neck, about an inch in diameter; and on being carefully untwisted, the whole included portion was found to have made four turns, or two entire revolutions upon itself. There was no line of demarcation

between the healthy and strangulated portions, nor was there any appearance externally of old disease about this part. The small intestine and the colon were moderately distended, but the rectum was rather contracted. The cavity of the peritoneum contained a small quantity of turbid reddish fluid, and in one place there was recent lymph upon the small intestine, but there were no other appearances of inflammation. Owing to the state of the body and the place of examination, the intestine was not opened, and no farther dissection made.

Remarks.—Internal strangulation, we have reason to believe, is a fatal disease except in rare instances in which a spontaneous restoration of the parts may under favorable circumstances have taken place. But the resources of art are for the most part unavailing, from our ignorance at the time, of the nature and place of the lesion, and from the inaccessible situation of the part, unless by a dangerous operation, not to be justified under any diagnosis which can be seasonably made out. Among the various causes known to have occasioned strangulation, the rotation or twisting of the intestine is less common than some others. Yet in addition to the case which has now been described, two others have occurred in this city, under the observation of Drs. Homans and J. B. S. Jackson, the record of which I have seen, in which fatal strangulation occurred from the torsion or twisting of the sigmoid flexure.

Professor Rokitansky, of Vienna, in a work on internal strangulations of the intestines, divides these lesions into three species. Of these, the second species consists in the rotation of one part round an axis most commonly formed by some other part. It appears to be the result of his experience that rotation round the mesentery as an axis can happen only to the small intestines.* But it appears from the case above detailed, and the two others alluded to, that the large intestine is capable of undergoing this rotation, and from its anatomical position, no part seems more exposed to this change of situation than the sigmoid flexure.

From remarks made by Mr. Legare during his illness, it is believed that in some of his former attacks of colic and constipation, relief was obtained by the introduction of the elastic tube beyond the seat of

* British and For. Med. Review, III. 496, 498.

the stricture. This happy result is to be ascribed to the spasmodic character of the obstruction then existing. But when the intestine is rendered impervious by mechanical strangulation, it is evident that an instrument would sooner perforate the coats of the canal, than admit of being forced through the closed and tortuous passage. In the present case, tubes, some of which were two feet in length, were introduced into the rectum, and water injected through them continually to facilitate their progress. But the more flexible tubes were bent into a coil in the rectum, and the more rigid ones were irresistibly stopped at the sigmoid flexure, and could not be further forced without danger of perforating the intestine—an accident well known to have followed injudicious and violent efforts.—*Boston Med. and Surg. Journal.*

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6. *Hemiplegia, from tying the Common Carotid Artery.*—M. Sedillot applied a ligature to the common carotid to arrest hemorrhage, in a man who was wounded behind the right branch of the lower jaw. Complete hemiplegia of the left side of the body, and of the right side of the face, followed, and the patient lost his intelligence so far that he could scarcely comprehend questions put to him. He died nine days after the application of the ligature, and the post-mortem examination showed that the hemiplegic symptoms had resulted from the right side of the brain having been deprived of its due proportion of arterial blood.—*Gazette Med. de Paris*, 1842.—Am. Jour. Med. Sciences.

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7. *Bony Union of the Neck of the Femur within the Capsule.*—Robert Hamilton, Esq., states that he was shown by Professor Tilanus, in the Pathological Museum of the Hospital of St. Peter, at Amsterdam, three specimens of united fracture of the neck of the thigh bone within the capsule, two dry and one moist, which had a distinct compact line of osification running across, very close to, and partially through the head.—*Lond. Med. Gaz.*, 1843.—Am. Jour. Med. Sciences.

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8. *Death from a large dose of Sulphate of Quinine.*—A man 26 years of age, No. 11 Saint-Madeline's ward, was affected with acute articular rheumatism; he had been shortly before treated in the Hotel Dieu for small-pox, and having probably left the hospital too soon was

exposed to cold, and contracted acute rheumatism, in consequence of which he was admitted under the care of M. Recamier on the 27th November; he then labored under general fever without any complication; the heart, lungs, and head were not implicated; there was derangement of intelligence; no headache; both wrists were very painful and swollen, but the skin was not red; the knees were also painful, but in a less degree; no pain in the hips. The diagnosis was thus stated: *Acute rheumatism of the joints, with fever of medium intensity*; as to the prognosis, it was stated that they would probably be of tolerably long duration; that complications were to be expected, such as inflammation of the serous membranes of the thorax, though nothing of the kind yet existed.

M. Recamier having just witnessed an admirable cure effected in an analagous case, by the administration of sulphate of quinine, to a lady, in private practice, resolved to employ the same treatment in this case. He prescribed the first day three grammes (46½ grains) in twelve papers, one to be taken every hour. No bad effect resulted.

The next day the pains were diminished in the lower extremities, but were more severe in the wrists. On a careful examination of the heart, no bruit de soufflet could be detected, but its pulsations were not quite so distinctly clear as natural.

The second day five grammes (77 grains) of sulphate of quinine were prescribed; to be taken in the same manner as the first day. The patient had only taken 3½ grammes, when he was suddenly taken with extreme agitation, followed by furious delirium, and death occurred in a few hours.

On dissection, the signs of a general and most intense meningitis were discovered; considerable sanguineous effusion of the meninges; penetrated vascularity of the surface of the brain, of which some points, more intensely inflamed, presented a commencement of softening; the quantity of serum in the ventricles was natural.

While the foregoing case was in progress, a similar but less disastrous one occurred under the care of M. Husson, in the person of a patient affected with symptoms of rheumatism, closely resembling the above mentioned. Six grammes of sulphate of quinine were administered; after the ingestion of the last dose, the patient fell into a state of prostration, rapidly followed by extreme agitation and delirium, to which soon succeeded excessive debility and complete immobility. The pains, however, had disappeared.—*Gaz. des Hopitaux*, Dec. 8, 1842.—Am. Jour. Med. Sciences.

THE WESTERN LANCET.

CINCINNATI, JULY, 1843.

ANDRAL'S MEDICAL CLINIC.

The publication of the extensive and valuable medical clinic of M. Andral, in the Select Medical Library, has just been completed. The great value of this work, and the cheap rate, at which it is furnished to the profession, is another evidence of the utility of Dr. Bell's reprint of standard works. Andral's extensive researches in pathology, entitle all his works to the careful consideration of the profession; and whatever differences may exist as to special *systems* and *doctrines* in theoretical medicine, all must agree that this great philosopher has enriched the science with many important truths, derived from that fruitful source, clinical observations and induction.

But, while we thus bear testimony to the fidelity of the researches of the great Parisian pathologist, we must be permitted to express a doubt as to the efficacy of his therapeutical suggestions. It is extremely futile to attempt to conceal the fact, that therapeutics has not advanced, *pari passu*, with pathology, and that the great efforts of the French practitioners are to make out an unerring diagnosis, verified with equal exultation in the dead subject as in the convalescent patient. Not that they are indifferent to the welfare of their patients, but their investigations are so exclusively directed to pathology and physiology, that the *ultimatum* of medical science, the cure of disease, is less cultivated than a knowledge of its immediate physical qualities.

To illustrate these views, we select the following case from Andral's Medical Clinic.

"A mason, fifty-two years of age, entered La Charité, June 21, 1822. He had but recently come to Paris, and then presented the group of symptoms which usually constitute what is called bilious

fever. Being treated with simple acidulated drinks, this man was completely convalescent in the beginning of July. He had contracted within the last few days a slight pulmonary catarrh: on the 6th of July, this catarrh became worse, and some febrile disturbance set in. On the 7th and 8th, frequent and painful fits of coughing, with a feeling of tearing behind the sternum—continuance of fever. (Emolient drinks.)

"On the 9th, the breathing appeared for the first time perceptibly hurried, and the fever was intense. Still the sonorousness of the chest was preserved—the sputa were those of simple catarrh; but auscultation detected a little crepitous râle with the admixture of the respiratory murmur, in the space included between the left clavicle and breast, in the hollow of the axilla, as well as in the supra and infra-spinous fossæ of the same side. Elsewhere the respiratory murmur was strong, and its great clearness was obscured in some points only by a little mucous râle. M. Lerminier announced the existence of an inflammation, in the first stage, of the upper lobe of the left lung. This inflammation seemed to have succeeded gradually to inflammation of the bronchi. (Twenty leeches below the left clavicle; bleeding to 12 ounces.) The blood was covered with a thick coat; the clot was small, and was surrounded by a great quantity of serum.

"10th. Same state. 11th. A crepitous râle, entirely masked the respiratory murmur; the sonorousness was a little diminished beneath the left clavicle. Thus the pulmonary inflammation had progressed; *still the expectoration remained catarrhal.* (He was bled to twelve ounces.) Blood coated as at first.

"12th and 13th, no change, and particularly nothing characteristic in the sputa, which are small in quantity, and consist of a white thready mucus. (Blisters to the legs.)

"14th. In the part above mentioned, corresponding to the upper lobe of the left lung, there was nothing heard but a very weak crepitous râle, without any mixture of the inspiratory murmur: beneath the clavicle, and in the hollow of the axilla of this side, the sound was dull, and the breathing perceptibly more embarrassed than on the preceding days. *The catarrhal appearance of the sputa still continues.* Pulse frequent and rather hard; skin hot and dry. *Hepatisation evidently commencing.* Again we have recourse to blood-

letting. (*Bleeding to sixteen ounces.*) Blood coated, clot soft, readily dissolving in the serum.

"15th, 16th, and 17th, the disease appears to remain stationary; *the sputa have not changed their appearance.* Nothing given but emollient drinks.

"18th. Stated change for the worse; sound very dull under the left clavicle. Between this bone and the breast, and posteriorly on a level with the spine of the scapula, the bronchial respiration is heard every time the patient inspires. When he speaks, the voice gives a remarkable resonance which does not exist in any other part of the thorax. This double modification of the respiratory murmur, and of the voice, was so marked, that we would readily have attributed it to the existence of an empty tuberculous cavity, if the other signs did not bring us off from this idea. The dyspnœa was considerable. The sputa were not characteristic. The pulse, very frequent, had lost its hardness. (A bleeding to eight ounces; blisters to the thighs.) Blood coated, clot large and very soft.

"19th. The breathing was so embarrassed, that the patient could scarcely pronounce, with a panting voice, some few broken words; in other respects the symptoms were the same. (Sinapisms to the lower extremities.)

"20th. Crepitous râle under the right clavicle. 21st and 22d, it continues. On the left we constantly hear the bronchial respiration and the resonance of the voice. The patient no longer expectorates. He died on the 24th, from the constantly increasing difficulty of breathing."

The post-mortem examination in this case fully confirmed the accuracy of the diagnosis, which was truly a source of great gratification.

The following remark of the author will show that the progress of the disease was closely observed:

"We have seen few cases where auscultation afforded such positive information, where we were enabled for a manner every day, by the help of this information, to trace the progress of this inflammation with such precision, that the sense of sight could not have been more faithful."

Here is a case of pneumonia, which was detected in its most in-

cipient stage, gradually progressing in violence until it terminated fatally on the fifteenth day. And what did the great physician of the La Charité do to arrest the malady? This was done: on the first day twenty leeches were applied, and bleeding to twelve ounces; on the second, bleeding to twelve ounces; third and fourth, blisters to the legs! fifth, bleeding to sixteen ounces; sixth, seventh, and eighth, emollient drinks! ninth, bleeding to eight ounces, and blisters to the thighs; tenth, sinapisms to the lower extremities; eleventh, twelfth, thirteenth, fourteenth, and fifteenth, *nothing!*

All the treatment, then, suggested by the great master of the La Charité, understanding most accurately the first symptoms of the disease, and its progress from day to day, was venesection to the amount of forty-eight ounces and one leeching, in sixteen days! No intimation is given that any other medicine was administered. Absurdity could go no further. We are willing to rely on Andral in Pathology, but in therapeutics we will go elsewhere for instruction.

Plastic Operations.—This department of operative surgery is becoming very *prominent*, especially when the *nose* is the member reclaimed from unmerited deformity. Although the art of tailoring is considerably invaded by these operations, yet as it only interferes with the branch of *mending*, but little exception can be taken to the encroachment. Noses, eye-lids, lips, and ears can be "made to order," with as much accuracy and dispatch as the most fastidious could desire. There was once a period when surgeons and *barbers* sustained a relationship not very remote; but while the barber was permitted to exercise certain functions of the surgeon, the latter was very ungenerously prohibited from practicing the *shaving* art; but in the present age of equal rights and privileges, the restrictions are less severe.

But, seriously, plastic operations, when skillfully performed, constitute an exceedingly useful branch of surgery, and although their extension to *blepharoplasty*, *otoplasty*, *bronchoplasty*, *staphyloplasty*, *keratoplasty*, *genoplasty*, *palatoplasty*, *urethroplasty*, *elytroplasty*, all growing out of the original *rhinoplasty*, is, in many instances, of doubtful expediency, yet the judicious surgeon will seldom fall into great errors. Othopædic surgery, springing from the section for

torticollis, and closely allied, in some of its features, to the former, can boast of a still wider range, and a greater extent of applications than plastic surgery; but many of these operations, such as many of those of M. Guerin, are now severely censured by the judicious and reflecting.

The operations in plastic surgery, by Prof. Mussey, detailed in the present number of the Lancet, are highly creditable to the operator, as well as useful to the patients. The operation for eversion of the eye-lid, which we witnessed, was skillfully performed, and completely successful. There can be no doubt that plastic operations, performed by a skillful and judicious surgeon, as in the present instance, will add greatly to the usefulness of modern surgery.

INDIANA MEDICAL INSTITUTE.—The Society of the Indiana Medical Institute, held its annual meeting on the first of May, 1843. The following officers were elected for the ensuing year: Dr. Samuel Barbour, President; Dr. Wm. Bracken, Vice President; Dr. W. H. Martin, Secretary; Dr. J. Helm, Treasurer; Dr. Wm. Frame, Librarian; Drs. H. J. Sexton, J. Helm, and Wm. Frame, Censors. The Board of Examination consists of the following gentlemen: Dr. H. G. Sexton, anatomy and physiology; Dr. J. W. Trees, materia medica; Dr. R. Robins, chemistry; Dr. J. Helm, institutes and practice of medicine; Dr. John Arnold, surgery; Dr. Wm. H. Martin, obstetrics and diseases of women and children.

Dr. Trees read the history of a case of disease of the great sympathetic nerve. Dr. Martin reported a case of obstinate constipation, attending a case of intermittent fever, which nothing would control but large doses of quinine. Dr. Robinson also reported a case of obstinate constipation. Dr. Arnold reported a case of inversion of the uterus, which had existed two years.

We are pleased to observe the thorough organization of this society. An examination of the applicants for membership, on all the branches of medical science, is the only true test of qualifications, and is the only mode by which members should be admitted. By strictly adhering to the rules adopted, the society will sustain an exalted character; and admission to membership will be an honor to him admitted, and an evidence to the community of professional at-

tainments. The next meeting of the society will be held in Connersville, on the 1st of November next. All physicians within the limits of the society should become members; and if they attend the meetings regularly, and participate in the proceedings, we venture the prediction, that they will regard it as an important auxiliary to social and scientific culture.

TREATISE ON THE DISEASES OF THE WEST AND SOUTH.—It is well known to the profession, that Prof. Drake, of Louisville, Ky., has in contemplation the publication of a work on diseases peculiar to the West and South. The necessity for such a work has long been felt; and no man is better qualified, by habits, education, and observations, to accomplish this important undertaking than Prof. D.

This will be a work of great labor, and must necessarily occupy a considerable period in its completion; but as it has been in contemplation for some time, we presume considerable progress has been made in collecting and arranging the materials for publication. As it is to be a book of home materials, home manufacture, and intended for home consumption, the sooner it gets *home* the better.

In his *traveling editorials*, detailing incidents and observations connected with a late tour through the South, Prof. D. makes some interesting and humorous remarks on the classification of the various medical practitioners. These are divided by the people into *Doctors, calomel doctors, and botanical doctors.* Of the second variety the writer remarks:

"Of calomel doctors we have seen but few, and those few have lost so much of the true physiognomy of the *caste*, as scarcely to be recognized. But our readers may ask, who, or what is meant in Alabama by a calomel doctor? We reply, he is, or rather *was*, a regularly educated physician, who assumed that calomel was the *only* remedy for malignant autumnal fever, and would certainly cure, if administered to the extent of a couple of ounces a day. Some of their patients occasionally had a pound *avoirdupois* in their stomachs at one time. But we do not propose to go into details, for the practice now sleeps with its victims; and many who once pursued it with unrelenting energy, at present unite with their brethren in its reprobation. A similar account may be given of drastic purging. A gentleman assured us that he had, under the direction of a physician, weighed out and administered to a fever patient, 1700 grains of calomel, and 2400 grains of aloes; and a physician informed us that he

had given to a patient of the same class, 600 grains of a compound of equal parts of calomel, rhubarb and aloes, for six successive days. At present, as little calomel is prescribed in this country as in any part of the Union, and perhaps less cathartic medicine. The ill success of the calomel and aloes doctors, brought into favor the botanical or steam doctors, whose methods were certainly preferable."

This is certainly a very indifferent compliment to the "calomel and aloes doctors," of whom former periods have known not a few.

Epidemic Influenza.—This disease originated on our North East coast, and seems to be traveling West, or South-West, though its course is not always uniform. It first appeared in New York, and subsequently in Boston and Philadelphia almost simultaneously. The epidemic reached Cincinnati about the first of July, and within a few days a large proportion of the inhabitants were brought under its influence. The symptoms are not entirely uniform, though sufficiently characteristic to admit of its recognition in all instances. The most common symptoms are, headache, sometimes preceded by a chill, more or less oppression in respiration, cough, fever, muscular or articular pains, general uneasiness (*malaise*) and lassitude. These symptoms vary considerably in different cases. Febrile reaction is usually not very intense, though occasionally the pulse and heat of the surface indicate a high grade of action. The catarrhal symptoms are not very prominent in most cases, though coryza, cough, &c., are sometimes the most marked phenomena. Constriction in the thorax, by which the air-cells and parietes of the chest are prevented from full and free dilatation, in all well developed cases, was the most characteristic condition. The cephalalgia is frequently severe, and sometimes attended with delirium. The cough is not uniform, though it becomes more violent as the febrile stage subsides; and in some instances the larynx becomes affected, and it assumes more the character of croup.

The most constant and uniform symptoms are, headache, fever, cough, difficult respiration, muscular pains, lassitude, and general uneasiness.

Notwithstanding the formidable onset of the disease, the prognosis is uniformly favorable; indeed, so far as our observation has ex-

tended, it readily yields to proper medication. Its common duration is from two to five days.

The *treatment* has been as simple as it is successful. Venesection, gentle emetics, aperients, and diaphoretics, embrace the remedial means usually resorted to. The nervous system was considerably involved in the derangements, as evinced by the thoracic constriction, cephalalgia, muscular pains, restlessness, &c., which occasionally demanded the use of narcotics.

In New York the disease proved more violent than it has in this city; in some instances so rapid was its course, that it terminated fatally before medical aid could be rendered. It is also reported to have been fatal to some extent in Pittsburgh. In Philadelphia and Boston it has been entirely controllable, and in this city we know of no fatality attending its progress. We hear of its spread Westward, in the contiguous part of Indiana. It reached St. Louis within a few days after its appearance in Cincinnati.

Andral describes this disease under the title of the *Grippe*, which was epidemic in France three times from 1831 to '37. It did not differ, in a material degree, from the epidemic now prevailing here. At some points it became obstinate and fatal, while in Paris it was mild and manageable. Some anomalous symptoms are mentioned, such as a profuse perspiration during the febrile stage, resembling the *sweating sickness*. A miliary eruption was sometimes observed to appear with the sweating symptoms. It prevailed at all seasons and affected all classes, though children under two years old more frequently escaped. Young children were less frequently attacked here than adults.

Necrology.—Died, in this city, on the 30th of June last, Richard Eberle, M. D., in the 33d year of his age.

We expect to receive a more extended notice of the death of Dr. Eberle, which will appear at some future time.

Died, in London, on the 23d of May last, Frederick Tyrrell, Esq., aged forty-six. Mr. Tyrrell has been for many years one of the surgeons to St. Thomas' Hospital and the Opthalmic Institution. He died of diseased heart.

To Correspondents.—We have received several communications, which will appear as early as we can find room for them.

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ORIGINAL COMMUNICATIONS.

ART. I.—*On Mesmerism.* A Valedictory Address, delivered before the Medical Convention of Ohio, May, 1843.—By ROBERT THOMPSON, M. D., of Columbus, Ohio.

GENTLEMEN:

The subject which I have chosen for the present occasion, is one which has never been surpassed in novelty and interest; nor is it likely that the mind of man will ever dwell upon any other, which will present, on slight examination, so many seeming absurdities, and such an endless train of apparent contradictions to all past experience, as the one now under consideration.

You all anticipate me—"It is Mesmerism"—yes, *it is Mesmerism.*

Do I hear some one inquire, "Is he going to bore us upon animal magnetism again?" This will depend upon one of two considerations—first, that you are all better acquainted with the subject than I am; or, second, that, having no knowledge of Mesmerism, you desire not to be disturbed upon such an uninteresting subject.

Now, as a subject may become interesting in more ways than one, it will not be improper to inquire at the outset, why it is that Mesmerism requires the closest scrutiny of every capable inquirer after truth.

In the first place, it is introduced to us as a matter-of-fact concern, involving in its nature the useful, the astounding, and the morally sublime—a something capable of overturning long established principles and opinions—not only wonderful in itself, but capable of

working wonders. All this, and more, is said of it by men not to be discredited, as regards honesty or capacity, upon other matters which they may have handled.

If all this be true, is it not the duty of the medical profession to inquire into its nature and uses, that its benefits may be extended far and wide? Most assuredly it is. On the other hand, Mesmerism is said to be "a gross imposition," "a delusion," "a humbug"—"allied to witchcraft and hobgoblins"—"worse than Millerism and Mormonism;" and this, too, by men equally respectable with those who sustain it.

If the opinion of its opponents be correct, shall the medical profession not strip from its face the mask which conceals so odious a countenance? Shall the profession, never hindmost in scientific enterprise, fail to protect the world against imposture, humbug and delusion?

But, in a particular sense, does Mesmerism demand the attention of the medical profession, as cultivators of science. If the world discovers in it all that is claimed by its advocates, what apology will you offer for having neglected the cultivation of a science which is more clearly demonstrative of the higher capabilities of man, in a psychological sense, than all the other sciences put together? Nor do its claims stop here. It assumes to render us efficient aid in the diagnosis and treatment of disease.

On the other hand it is objected, that Mesmerism, in the face of its prominent promulgator, whose name it bears, was most signally exploded by the investigation of the famous Parisian committee, of which our illustrious countryman, Franklin, was chairman.

The fact that denunciation and abuse have frequently announced to the world the supposed annihilation of many valuable discoveries and improvements in the arts and sciences, should admonish us that while we cautiously entrench ourselves against the encroachments of error, we should never surrender our judgment to the authority of names. And in this connection I would ask the indulgence of the Convention while I advert to a few facts, which, to my mind, tend to lessen the weight of authority attached to the character of the celebrated royal commission already alluded to.

That the commission was an able one is conceded by all; but that the circumstances under which it was raised were such as to authorize us in scrutinizing its proceedings, cannot be denied.

In the year 1778, Anthony Mesmer, a Switzer by birth, who had received his professional education in Vienna, under the prelections of Van Swieten and Van Haen, appeared in Paris, where he soon became the object of general curiosity and interest, on account of the novelty of his pretensions. Crowds of all ages and sexes thronged the avenues to his lodgings, eager to be benefited by his treatment, while the extension of his fame had seldom found a parallel. He made some attempts to ingratiate himself into the favor of the Academy of Sciences and the Royal Society of Medicine; but being repulsed, he expressed his contempt for these bodies, and sought the patronage of the King. After some time, he addressed himself to the Faculty of Medicine, and became associated with M. Deslon, a member of that body, who strongly sustained him, notwithstanding the resolution of the Faculty to expel any of its associates who refused to enter into a renunciation of Mesmer and all his pretensions.

About this time, through the influence of a multitude, who placed a high estimate upon his curative powers, the government was prevailed upon to offer him a stipend of 30,000 livres, to dissuade him from carrying his discoveries into foreign countries; a design which it seems he had entertained, on account of the discourteous treatment received by him from the Faculty of Medicine.

This offer he refused with disdain, and for a time withdrew from Paris, where he thought his pretended friends had cruelly treated and betrayed him.

Animal magnetism being practiced very extensively in France, by all classes of people, the government interposed, believing that good or evil results were likely to follow so popular an object of attention. And hence the organization of the commission.

In a hasty review of this sketch of Mesmer's difficulties in the French metropolis, several points are deemed worthy of remark. In the first place, he was a stranger, arrogant in manner, of sounding pretensions, and, moreover, he claimed to be in possession of something unknown to the proud profession of that great emporium of intellect. In the second place, the jealousies of the profession were excited by the popularity which he so hastily acquired among all classes of society. The Faculty resolved to expel any member who would sustain him in his pretensions; thus manifesting a disposition to suppress, by arbitrary despotism, a something, they knew not

what. In the third place, the government offered to purchase his favor, which he declined with disdain.

Mesmerism at length became so popular, that, as a last resort, the King and the Academy raised a committee of investigation, to inquire into and decide upon a matter *already adjudicated before the tribunal of public opinion.*

Under such circumstances, does any one pretend to believe that Mesmerism could have been put to the test of impartial and decisive experiment? Impossible! The learned bodies of Paris were behind the people in every thing pertaining to animal magnetism, except denunciation; but in such learned bodies were the materials to be found of which the committees, or rather joint committee, of investigation was to be composed.

Learned bodies sometimes express, but seldom retract, erroneous opinions. What must be done! A report was expected. The formality of investigation was entered upon, by a body of men competent in every essential save and except a *freedom from prejudice*; and without which, the very nature of the subject forbade them to anticipate the most satisfactory results, as, I trust, will appear in the following pages.

Experiments were conducted by M. Deslon, a disciple of Mesmer, and a report was drawn up by M. Bailly, (and not by Dr. Franklin, as has been said,) which has been asserted, either through ignorance or design, to have put an extinguisher upon Masmerism. But how stand the facts in the case? Let their report speak for itself. In summing up their report the commissioners say, "That which we have learned, or at least that which has been proven to us in a clear and satisfactory manner, by our inquiry into the phenomena of Mesmerism, is, that *man can act upon man* at all times and almost at will by striking his imagination; that signs and gestures the most simple, may produce the most powerful effects; that the action of man upon the imagination may be reduced to an art, and conducted after a certain method when exercised upon patients who have faith in the proceedings." (Townsend.)

As regards the production or existence of certain phenomena under peculiar circumstances, there was no disagreement between the committee and the early Mesmerists. The *cause* was the matter at issue—the former asserting it to be the imagination, the latter believing it a fluid.

Though, as is ever the case with sceptics and prejudiced individuals, the results were not so entirely satisfactory as M. Deslon and his friends could have desired, it is evident, upon their own showing, that more was proven than the enemies of Mesmerism wished.

"We have seen," say the commissioners, "the imagination become powerful enough to make a person lose the faculty of speech in a moment." "*Imagination*"—what a convenient term! It solves, by its talismanic power, every difficulty. Utter this enchanting word, and in a moment, the learned and unlearned become *equally* enlightened upon the most occult propositions in psychological science.

It may not be improper, in this place, to recapitulate a few of the admissions of the commissioners. "That which we have learnt, or at least, that which has been proven to us in a clear and satisfactory manner"—(how neatly guarded the language, lest it might be understood that they had learned any thing from Mesmerism)—"by our inquiry into the phenomena of Mesmerism, is—*that man can act upon man*, at all times, and almost at will, by striking his imagination; that signs and gestures the most simple, may produce the most powerful effects; that the action of man upon the imagination may be reduced to an art, and conducted after a certain method," &c.

Now for a moment consider the matter. Striking phenomena were witnessed—man acting upon man, *producing the most powerful effects, by the most simple means*, "signs and gestures;" and all this, too, when the patient was approached in the most palpable and undisguised manner. Again, "we have seen," say they, "the imagination, when exalted, become powerful enough to make a person lose the power of speech in a moment." "When exalted." By what means exalted? By the "most simple means," "*signs and gestures*," and these signs and gestures reducible to an art, by which man can act upon man at all times, *and almost at will*, and how? By *striking the imagination*. Now, as I have no particular attachment to the terms "mesmerism" and "animal magnetism," it will inflict no pain to adopt the term "imagination" in their stead, provided the whole world use it in the *extended meaning* attached to it by the French committee, with this simple *codicil* to the evidence of their munificence—that man can act upon man, not only *contrary to his will*, but when he is *ignorant of an intention to affect him*, or of the phenomena designed to be manifested.

The committtee, in fact, was called to act in the midst of difficulties. Opinions, previously expressed, could not be hastily retracted—public opinion could not be entirely disregarded—the government must be conciliated. Ingenuity and talent were deemed equal to the task, while the imagination was laid under contribution in the production of a report, which assigned to the imagination, capacities never dreamed of either in poetry or philosophy.

But this was not all. M. Jussien, second to none as an intelligent and laborious investigator, unwilling to concur with the majority, drew up and submitted an able, separate report, which, so far as I am advised, yet remains unanswered.

Nor did the matter end here. The commissioners, either under requisition of the government, or of their own free will, I know not which, presented a secret report to the King, in which they called his attention to the "dangers which must originate from meetings of this kind"—*mesmeric* meetings. (See Gehler's Physical Dictionary, edited by Beondes, Gmelin, Hosmer, Muncke, Pfaff, tom. vi., page 1151.)

A *secret report* to the King! a minority report, and a principal report to the Academy, each of which, of necessity, differed from the other. Two classes of opinions for the public, and one for the *privacy* of the King; and yet the proceedings of the committee constitute the foundation of the faith of all non-inquiring anti-mesmerists!

But, I am asked, shall the undying fame of our countryman, Dr. Franklin, be tarnished by the association of his name with such proceedings? No, it shall not. Dr. Franklin, then American minister near the court of Louis XVI., was by courtesy named as chairman of the committee, on behalf of the Royal Academy of Sciences. The subject of investigation, as already shown, was a disturbed one—looked upon with disfavor and suspicion by both the scientific and political despotisms of France. Franklin was engaged in negociations of immense importance to the interests of his country at that juncture, demanding the highest efforts of his mighty intellect, and the exercise of all that sagacity which characterized him through a long and useful life. Under such circumstances, was it expected that he would jeopardize the interests of his country by offending the despotisms already named? No; nor, situated as he was, at Passy, some distance from Paris, and in a feeble state of health, was it possible for

him to attend upon the meetings of the commission for investigation, as is stated in the report, upon which stress is laid in the following language. "Dr. Franklin, though the weakness of his health prevented his coming to Paris, and assisting at the experiments there made, was magnetized at his own house, at Passy, by Mons. Deslon. The assembly was numerous: every person who was present underwent the operation. Some sick persons, who had come with M. Delson, were subjected to the effects of the magnetism in the same manner as at the public process," &c. And thus it appears that Dr. Franklin had one brief opportunity of witnessing mesmeric experiments, conducted before a "numerous assembly, every one of whom was operated upon," and this too by persons almost entirely destitute of all practical knowledge of the subject in which they were engaged, and under circumstances most unfavorable to the developement of mesmeric phenomena, and in a crowd of prejudiced sceptics.

Now, in all candor let me ask, did Dr. Franklin witness enough of the effects, attributed by the report, to the "imagination," to sign it understandingly; or, did he, as *nominal chairman*, sign the report, drawn up as it was by Bailly, through courtesy?

But again, let me inquire, did Franklin ever see the secret report to the King, in which the commissioners admonish his Majesty of "the dangers which must take their origin from meetings" of the people, held for the purpose of examining the subject of mesmerism? Did that stern republican sign a secret report to the King, setting forth that meetings of the people were dangerous, and not to be tolerated? Impossible! Franklin was not a confidential and secret adviser of the French King, against the cause of human liberty!

I have deemed it proper to be thus particular with regard to the early introduction of animal magnetism into France, as many have been prone to denounce the subject upon no better authority than the vague and unfounded rumor, so eagerly propagated by its enemies, that "Franklin's report dissolved the delusion in 1784." Yet, notwithstanding the report, falsely accredited to Dr. Franklin, many have considered the subject worthy of farther investigation.

The misconceived authority of a name, though fatal in a great degree to free inquiry in this country, did not exert a like influence in other countries. In France, in Germany, in Prussia, men of the highest standing in the medical profession, devoted time and energy

to the investigation of mesmerism, and even during the dark period of the French Revolution, when personal safety constituted the leading motive to action, the subject was cultivated by such minds, and in such a manner, as to present it, at the dawn of a better day, disrobed of the fantastic garb in which its early disciples had exhibited it, while, by a more perfect development of its principles and capabilities, new and more captivating traits of character were presented to the scientific world.

Within the last twenty-five years, so great has been the interest felt upon the subject in France, that two committees of the Royal Academy of Medicine, have successively investigated its merits, during several consecutive years, which investigation has resulted in the collection of a mass of testimony, which, in the language of Professor Caldwell, "if true, in behalf of the soundness of the doctrines of mesmerism, is irrisistible and conclusive."

In this country, its progress has been onward, though met at every point by the misconceived and half matured argument of the philosopher, whose pride of opinion, or of intellect, had enabled him to reason without facts, and even to condemn without evidence. But as truth is eternal, so will its triumph be certain. Regardless alike of the frowns of the philosopher, the snarl of the dogmatist, or the sneer of the fool, its march is still onward.

But it is objected to mesmerism, that it is inexplicable upon any known principles, while it contradicts all past experience, and therefore is unworthy of belief.

By whom, let me ask, are such objections presented? Not by any one, who, having honestly, earnestly, perseveringly, and intelligibly investigated the subject, according to its ascertained laws, yet remains unconvinced of its truth. No—I am free to declare there is no such person in existence.

With regard to the first objection, I would remak, that facts are facts, irrespective of our ability to trace their connection with the world either of matter or mind; and, so long as belief depends upon facts, and not upon principles, the latter being deduced from the former, the merest tyro in philosophy will perceive the absurdity of such an objection.

To object, that, inasmuch as it contradicts all past experience, we must therefore reject it as unworthy of belief, is to trifle with whatever degree of intellect we may possess.

What discovery, or improvement in art or in science, can be found within the range of human knowledge, that was not once obnoxious to this most puerile objection?

But others object and withhold their belief, because they cannot understand the subject. This being closely allied to the first objection stated, requires but little additional refutation.

Try every subject of your belief by this test, and my word for it, you will never perform a voluntary action. Would you point the finger of scorn at the honest believer in animal magnetism, did the act depend upon your ability to understand the why and wherefore? Never!

You are all advised of the fact, that the discovery of the circulation of the blood, which immortalized Hervey, was never believed by any member of the profession during life, who had advanced to the age of forty years, at that particular juncture. The fact was strenuously controverted by many of his cotemporaries, of whom Riolan alone was favored with an answer. Yet, notwithstanding all this oppostion, the blood will continue to circulate. This great discovery *could not be believed*, because it *was not understood*. Investigation dispelled, not the *new* "delirium," but the *old*.

Nor can it be forgotten, that, long after the world had become satisfied of the truth of the Newtonian system, Goethe curved his wing, descended from Parnassus, and wrote a book to disprove the "vagaries" of this most eminent philosopher. The poet could not believe, because he did not understand.

It is a matter of record, that, "when Locke, in 1790, published his celebrated essay on the Human Understanding, it was instantly attacked by various writers among the oracles of learning, most of whom are now forgotten: and it was even proposed, at a meeting of the heads of the houses of the University of Oxford, formally to censure and discourage it; but nothing was finally resolved upon, but that each master should endeavor to prevent its being read in his college." Sage masters! they could neither believe nor understand. And, if my memory serves me right, this same august and venerable University decreed the glorious discovery of our Franklin out of existence, several years after a thousand experiments had verified the facts. They neither understood nor believed; but, fortunately for the cause of science and humanity, the world could believe without the aid of the University.

Some there are, who assure us, that, "if certain occurrences should transpire in their presence, as results of mesmeric operations, they should disbelieve the evidence of their own senses"—"they *could not* believe." To such I would say—you act wisely, no doubt, knowing the infirmity of your senses: grant me the privilege of attaching no importance to your opinions; as opinions, made up upon *equivocal evidence*, are rubbish indeed.

The suspicion of "fraud," "collusion," and "imposture," is an everlasting barrier to belief with many sapient unbelievers in mesmerism. That we should ever be watchful in the society of knaves, is most certainly proper; but, to discover, in every avowed believer in mesmerism, a *knave or dupe*, is a much stronger evidence of arrogant self-sufficiency, than of liberality of spirit.

The *prudential philosopher*—and there are many such—dislikes to assert an opinion, lest, perchance, it might be wrong; but, where the right is unquestioned, "always entertained that opinion,"—such, of course, we do not expect to assist us, while assistance is necessary.

Then, again, will be found the *unchangeable philosopher*, who, having once expressed an opinion, that darkness is light, would arise at midnight to make telescopic observations upon the disc of the sun, sooner than be found retracting an error.

Did time permit, I might dwell much longer upon this part of my subject; but I will now only call your attention to a few cases more particularly in point, and which no well read physician will pretend to deny—cases in ordinary and cataleptic somnambulism, trance, presentiment, prevision, and dreaming, which, so far as regards solution upon any rational and acknowledged principles of philosphy, stand as a reproach to science and a reproof to the vain-glorious scoffer at the not more mysterious subject of mesmerism.

The points of resemblance between ordinary somnambulism and mesmerism, or, what might be called, in this connection, artificial somnambulism, are numerous and striking; and I might dwell upon them at length, and trace out their analogy; but my object will be attained, if I can make it appear that there are phenomena, of almost daily occurrence among us, equally inexplicable as those of animal magnetism, and equally as unworthy of our belief.

A striking instance of sleep-walking is related by Horatius, illustrative of the connection between somnambulism and dreaming. A young nobleman, in the city of Brenstein, was observed to rise in his sleep, and ascend to the roof of the house. He then destroyed a magpie's nest, secreted the young birds in his cloak, and returned to his room. In the morning he awoke, and related the adventure as having occurred in a dream.

Henricus ob Heer relates the case of a student of a University in Germany, who, having been very intent on the composition of some verses, which he could not complete to his satisfaction, rose in his sleep, opened his desk, and sat down with great earnestness to renew the attempt. At length, having succeeded, he returned to bed, after reciting his composition aloud, and setting his papers in order as before.

"Diogenes Laertius has recorded the case of a stoic philosopher, who, in this state, used to compose works, read and correct them."

The following is a letter of Prof. Winckler, of the German Lutheran Seminary, Columbus, O.

"To Dr. THOMPSON.

"At the time when the writer of this was in the Latin school of the large Orphan House, in Halle, in Prussia, (founded in the year 1694, by the celebrated and pious August Hermann Francke,) a student was there, who was known to be a somnambulist. In Prima, the highest of thirteen Latin classes, every one of us had to hand to the Rector (Principal) of the School, every Tuesday morning, a Latin composition of about six or eight quarto pages, which was returned the next Thursday with marks like these: 'Displicuit,' 'placuit,' 'bene,' 'perbene,' &c., and were criticised. The Rector was very strict, and 'perbene' was very seldom given. Our friend, the somnambulist, had once a dreadful Monday: he sat up till 11 o'clock at night, to write his composition, but all in vain! He did not know what to write. Full of despair, he went to bed. up into the large hall, where one hundred and four orphans and their superintendents slept. After midnight, one or two of his neighbors heard him get up, go down, and, after about one hour and a half, he returned and lay down again. In the morning, the bell for rising startled him: with a heavy heart he thought of his composition. Down he went, opened his desk, mended the pen, and sat down to write, when, to his utter astonishment, he saw it *was* written, theme and all, five or six pages long. The ink was fresh, the sand was on it yet. He thought of a trick some one had played on him, but it was his own handwriting; and his roommates assured him, that he had been down himself, at night, without a candle, however. He handed his book to the Rector, and with anxiety awaited the result. The Rector knew of nothing. Thursday came, and our friend had a much better word under this, than under any of his former compositions, so that the word of Psalm 127: 2, was applied."

The case of Cartelli, as given by Francisco Soane, is most remarkable. He was found one night, translating from Italian into French, and looking for words in a dictionary, as usual. He used to leave his bed, go down to his shop, and weigh out medicines to his supposed customers, to whom he talked. He had been using Macquer's Chemistry, and somebody altered his marks, to try if he would notice it. This puzzled him for a time, but he found his place, and read aloud, and, on being requested to raise his voice, did so. Yet he perceived none of the persons standing around him, and, "though he heard any conversation, which was in conformity with the train of his ideas, he heard nothing of the discourse, which those persons held on other subjects."

A very curious case is given in the French Encyclopædia, of a young Catholic priest, who wrote, read and corrected sermons while

asleep, and this too with a card interposed between his eyes and the paper on which he was writing. "The most astonishing thing is, that he would write music with great exactness, tracing on it at equal distances the five lines, and putting down the cleff, flats, and sharps. Afterwards he marked the notes, at first white, and then blackened those which were to be black," &c.

"M. Bertrand considers it to be a peculiar feature of somnambulism, that the individual, though on waking, he is generally found to have lost all recollection of what passed during his sleep, yet recals, when the periods of this state return, the whole train of obliterated ideas—thus constituting, in reality, a new life, returning at unequal intervals, and connected together by a new species of memory."

As illustrative in some measure of this point, I would refer to a case given by Sauvages, and designated by him cataleptic somnambulism. The subject was a female, who, as the fit seized her, "began to talk with a degree of animation and *esprit*, never observed in her except in this state. She sometimes changed her subject, and appeared to converse with some friends whom she saw around her bed. Her discourse had relation to what she had said during her attack on the preceding day. She repeated, word for word, an instruction which she had heard the evening before, and made pointed applications of it to persons in the house," &c., &c.

In a case reported by Dr. Dyce, the patient remembered things which had excited her attention in former paroxysms, but which had been entirely forgotten during the intervals, and, in recovering from the attack, recurred to the impressions which had last been made upon her mind previously to the fit.

A case, similar to the last, is given by Dr. Silliman, in the American Journal of Science. "The patient, after awaking from a paroxysm, used to continue the conversation, in which she had been engaged previously to the fit, and even to take up an unfinished story, or sentence, or word; and, during the next paroxysm, she pursued in like manner the discourse of the preceding one, so that, she might be fancied to have two souls, each active, and each dormant, in alternation." These cases, and thousands more of a similar nature, which might be cited, present many strong points of resemblance to the magnetic condition, and the phenomena they present are as varied, as striking, and as inscrutable, as those of mesmerism; and, while we are bound to believe them, from the evidence of our senses, and the testimony of others, are we not equally obligated to give credence to our own eyes, and the testimony adduced in support of phenomena, not less striking, or more inexplicable, but far more interesting and important?

Let others think as they may: I doubt not, that ere long, the magnetic philosophy will not only prevail, but will most clearly elucidate the nature of those minor, and less important matters, and reduce them to the category of explicable phenomena.

The following rules and principles, deduced alone from my own observation of the phenomena, presented during my experiments in animal magnetism, are submitted as guides to the candid inquirer.

RULES.

In the first place, no one should expect to operate successfully, who is not honestly desirous to ascertain the truth.

No person should be operated upon, who is notentirely willing to submit to the mesmeric influence.

There should be a steady fixedness of purpose on behalf of the operator, and a calm acquiescence on the part of the recipient.

No effort should he made upon an untried patient in a large company, or before such persons as are disposed to sneer at or ridicule mesmerism.

The propriety of the observance of the foregoing rules will be obvious to every one acquainted with the philosophy of the human mind, when assured of the fact, that it is mainly by a continued and undistracted effort of the will that the patient is subdued, or brought under the mesmeric influence.

In the first, or *subduing* efforts upon the patient, it is proper that a communication by contact be kept up at intervals, for the following reasons, viz.:

The mind is more definitely directed to, and firmly fixed upon the subject, and secondly, the mesmeric principle or influence is transmitted more rapidly through the hands of the operator to the patient, than through any other known medium.

Persons, easily magnetized, may be brought under the influence without contact, or immediate communication; yet it requires a more powerful, and longer continued effort of the will, to produce this result.

As the mesmeric influence is liable to become exhausted, when the patient is continued long under experiment, or when required to solve difficult questions, it is necessary to sustain the patient by re-renewed efforts from time to time.

As much reflection and effort, on behalf of the patient, are frequently required in the solution of difficult questions, it is highly important to allow him as much time as he may require, without disturbing and annoying him, by repetition of the interrogatory, or by other kinds of interference.

Patients, in the mesmeric state, may derive their knowledge of facts from different sources, such as their own previous knowledge; from the mind and sensitive system of the magnetizer, or from any one or more put in communication with them; from persons or things present, or at a distance, and from sources altogether beyond the knowledge of any person in existence. Hence the importance and necessity of most critically guarding a patient against the operation of

extraneous influences, that may tend to produce mixed, and consequently, unsatisfactory results.

As patients are capable of detecting and pointing out unbelievers, and such as ridicule mesmerism, when present; and, as the presence of such persons is a source of annoyance to the patient, as may be suspected, by an experienced operator, from his movements and temper, it is proper either to have such persons withdraw, or to have them pointed out, with the reasons for their unbelief exposed by the patient, in order to remove the scepticism of the sneerer, and in a great measure restore the tranquillity of the clairvoyant.

As deep and highly interesting impressions are not apt to be readily dismissed by the clairvoyant, it is improper to change the subject of inquiry abruptly, or without definitely calling his attention to, and fixing it steadily upon the question last propounded, as such a course can alone insure us unmixed and satisfactory results.

No experiments in sensation or sympathy should be allowed while the patient is otherwise engaged.

Patients in the mesmeric state, being under the influence of the will of the operator, can be directed to do certain acts, and manifest emotions, though the parties be in different parts of the room, or even at greater distances from each other.

By placing the finger upon any part or organ of the body, sentiments and feelings of the most contradictory and opposite character, may be excited through the power of the will, and with equal effect, provided the mind may have received no bias in favor of any particular distribution of organs, through which the sentiments, affections, &c., are supposed to be manifested.

As a patient in mesmerism is known to be not only in physical, but also in mental relation with his mesmerizer, it is absurd to assert that the former is totally ignorant of any thing which makes a strong impression upon the mind or body of the latter, or is definitely known by him.

There are persons of peculiar susceptibilities, who are capable of imbibing the mesmeric principle, or nervous fluid, from others unconsciously, and in such a degree as to establish a strong sympathetic connection between the parties, so that they become strikingly identified in corporeal sensibility, and in intellectual sentiment.

This principle, it is believed, tends to an equilibrium among individuals, and may produce striking, appreciable results in persons of morbid susceptibility; and all the phenomena, ranging between the lowest sympathy and the highest mesmeric capability, may be manifested by the influence of invited or induced mesmerism—the effort being wholly made by the recipient, either with or without contact, or the use of the eye.

Most persons, thrown into a mesmeric slumber, may be aroused to a natural state by an effort of the will, by reverse passes, or by verbal request. The latter is, in a majotity of cases, more expeditious and satisfactory than either of the former.

The patient can, by agreement, or compact, be induced to wake and sleep at such intervals as the parties may agree upon. Such stipulations will be observed with the most scrupulous accuracy by the sleep-waker, whether hours, days, or other periods of time, be mentioned in the agreement.

In the mesmeric state, the mental and moral capacities of the patient are inconceivably exalted above their ordinary standard; and hence it is that the patient is more capable of appreciating good and evil, in their consequences, than in ordinary life.

As a patient is capable of remembering any thing enjoined upon him when in the mesmeric state, so also, is he capable of exercising the singular power of forgetting any thing previously known, and afterwards recalling what has thus been forgotten, at the request of the mesmerizer, on any subsequent mesmeric occasion.

So various are the susceptibilities and capacities of different patients, that it is impossible to assert, in advance of an experiment, what phenomena may be exhibited. One may experience the slightest possible unusual feeling in the hand or the extremities: another may exhibit great rigidity of muscle, without losing any one of the senses, except that of sight, and will consequently be able to converse with every person present, without retaining the slightest recollection of any thing that transpires while in that condition; another may be be rigid, sensitive, "wide-awake," converse with all around him, and yet be incapable of moving hand or foot, unless in obedience to the will of the magnetizer; another will manifest, in addition to the foregoing, the sympathies of sensation and of motion—feeling what the mesmerizer feels, and moving as he moves—and yet not possess, even in a tolerable degree, the faculty of clairvoyance, which is frequently enjoyed by a patient, who is by no means his equal in the exhibition of the phenomena above enumerated—while others will be thrown into a deep mesmeric sleep, manifesting but little of interest, save an entire suspension of all the external senses.

An individual may be thrown into the mesmeric state wholly, or part after part, as the operator may prefer, and may be aroused from this state in like manner.

Having dwelt much longer upon the subject already, than was my design when I commenced, I shall not enter into a minute detail, in the manner of those who desire to be very circumstantial in their narratives, but will briefly state a few facts, elicited by a course of the most rigid and carefully guarded experiments, conducted entirely by myself.

To persons at all acquainted with the physical condition of the human system, the following tests of the mesmeric state, will appear

unnecessary. But, as there are many, whose entire opposition to mesmerism seems to be predicated upon the opinion that the condition of tne patient is *assumed*, and that *delusion*, collusion, and imposture, characterize the phenomena exhibited as results, it may not be improper to state for their benefit, that the application of heat by the blowpipe, the sudden application of any pointed instrument to the skin, the application of snuff, or other powerful stimulants, to the nostrils, the introduction of articles of unpleasant taste into the mouth, or, in short, any thing that is calculated to produce a sudden and powerful impression upon the sensitive system, may be used as tests upon the patient, who, if in a proper mesmeric state, will not indicate the presence of sensibility in the slightest degree. After such a course of experiments has terminated, should the *humane* philosopher still doubt, let him privately apply some of the same tests to the mesmerizer, aud notice the effects on the patient. If snuff, applied to the nostril of the mesmerizer, produce sneezing in the mesmerizee; if ammonia, thus applied, produce a secretion of tears in the latter, result corresponding with result, throughout the series, the doubter, if he has capacity to estimate the value of evidence, and the honesty to avow it, will admit that others, though believers in mesmerism, may be equally honest and intelligent as himself.

Upon the subject of physical sympathy, my experiments have been entirely satisfactory—my patient being able to discriminate so definitely, as to appreciate the difference between Orleans and loaf sugar—between the various kinds of candies and other articles, usually resorted to as tests. In this class of experiments, by allowing the impression, made upon my palate, to become definite, my patient would not fail to name the article tasted once in twenty times. The same remark as to certainty, will apply to the sense of smell and the sense of touch.

MENTAL HARMONY, OR SYMPATHY.

My experience being much more limited upon this branch of the subject than upon others, that to me appeared more interesting, I can only say, that, so far as I made experiments, the results were unequivocal and satisfactory in the highest degree.

The following may suffice, by way of illustration. By an effort of the will alone, I have been able to call the attention of a patient to the subject of my own reflections, and to cause him to describe the scenes of my mental contemplation. By an effort of the will also, I have, at the request of a Rev. friend, induced a patient to remove from one apartment to another, and take a seat pointed out by my friend. During this effort, the patient and myself were seperated by a distance of thirty-five feet, and the interposition of an impervious partition of great thickness. When the patient had taken the seat assigned her, my friend requested that I should will her to play upon

the piano forte. Having made an effort to that effect, she arose, adjusted her seat, and sat down, remarking that her hands felt too stiff to play. On the removal of this difficulty by a few reverse passes on the hands, she performed with her usual taste and accuracy. In this last experiment, it will be perceived that the result was of a mixed character. In obedience to my will, the patient went from one room to another and performed upon the piano; but in the selection and execution of the music she acted entirely as a *free agent*; illustrating the fact stated previously, that the patient may derive his knowledge, when in the magnetic state, from the resources of his own mind.

I have, on several occasions, aroused a patient to a natural state, by an effort of the will, *immediately* and *entirely*; or at the end of a specified time, completely, or member after member, till the whole system was restored to its natural state. An important fact may be mentioned under this head. Notwithstanding you may direct a patient mentally to scenes and objects at a distance, if you are in error in regard to any particular matter, your patient will correct you, and insist upon the facts as they really exist. In May last, a patient was requested to visit my parlor, and inform me how many persons were there. She complied with my request, and assured me that there were two ladies in the parlor. I insisted that there was a gentleman there also. Her response was, "well, now, I tell you that there is no gentleman in the parlor." Upon which I remarked that Professor W—— and his lady had engaged to spend the evening with us, and were certainly there. Said she, "Do you think I don't see—the lady is there, but the gentleman is not." Upon returning home, I found the clairvoyant was right—positively correct. Prof. W—— had but seated himself as I entered—his lady had been in half an hour. Nor had any other person been in the parlor during that half hour, but those above alluded to.

The same is true also as regards principles. You may call the attention of a patient to the consideration of a subject, and unless you are correct in your views, an acquiescence need not be expected.

As it would be difficult to classify the phenomena presented in a series of sittings, I shall give a simple statement of facts as they were witnessed by myself and a small circle of friends.

EXPERIMENTS.

In June last, my brother, Dr. J. B. Thompson, being present at a mesmeric sitting, desired that I should request my patient to answer the following interrogatories. "What kind of a patient did I visit on yesterday evening?" Ans. "An old and rather fleshy lady, with

swollen extremities, and disease of the chest." "Where does she live?" Ans. "About six miles from town, in a north east direction." "How many physicians prescribed for her before I was called to see her?" Ans. "Three—two visited her, one prescribed without visiting her." "How far did the physicians who visited her live from her residence?" Ans. "One lived about six or seven, the other about six miles, from her." "Who prescribed without visiting her?" Ans. "Your brother," (myself.) The entire detail was true to the letter, though the name of the patient was, at the time, unknown to the somnambulist and myself.

At the same sitting, in reference to another patient of his, her answers were equally satisfactory, nay, more so, as she went into minute details, such as stating correctly the taste, and naming the medicine last prescribed, with the manner in which it was prepared, and the frequency of dose; that he had recently been using another medicine alternately with the above mentioned, at intervals of two hours; that this medicine had been discontinued, because it had produced the desired effect; that Dr. T. had visited him on the Saturday preceding, and had engaged to see him on the Saturday following, and that the patient would not recover—all of which was literally true. The patient died the next day.

The clairvoyant on this occasion, also stated correctly the course and distance of the residence of this patient from Columbus; gave a very correct general description of his residence and grounds, and remarked truly, when interrogated with regard to his family, that they appeared sickly.

It will be observed in the foregoing detail, that the past, the present and the future, as regards time; course and distance, as regards space; the senses of sight and taste, and the faculty of ascertaining the diseased condition of persons at a distance, were clearly involved, and as clearly proven. And it may not be improper to state, that my brother was careful to select cases of which I was entirely ignorant at the time, as he was then rather inclined to the opinion that *mesmeric cognition* was only coextensive with the knowledge of the memerizer, or the person in communication with the mesmerizee.

In addition to the foregoing, I might fill a book with details of like import, but will now add only a few sketches, which, while they corroborate the above, will present such variety of feature as may prove interesting to such as may be disposed to inquire candidly in respect to the nature of this mysterious subject.

On one occasion, after having visited a patient the day previous at a distance of twenty-five miles, I had a sitting for the purpose of making experiments in mesmerism, when the clairvoyant described my patient as to sex, color of hair, and diseased condition—stating

that she was very sick, but would certainly recover, as she had perspired freely during the early part of the preceding night—had an evacuation containing worms—and desired food. In the preceding detail, of which I had at the time positive knowledge, there was not the slightest error, except in the age of the patient, who was said to be a very young lady. She was in her eleventh year. Of the truth of the latter part of the detail, I had positive assurance on the same evening from the child's father, who had engaged to inform me of the progress of the case. The patient did recover rapidly.

Upon another occasion, for the purpose of demonstrating the truth of mesmerism, I interrogated a lady in mesmeric slumber, respecting a Mr. and Mrs. B., who I understood had been suddenly and dangerously attacked with congestive fever. This was the second day of their illness, at which time their friends and neighbors believed them to be dangerously ill. She said Mr. B. would die, but that Mrs. B. would recover. On a subsequent day during their illness, I again inquired with regard to the result of those cases. Upon which she remarked that she had told me already that Mr. B. would die, "and I now tell you he will die to-night unless he gets easier." He did die that night near the hour of nine. The sitting was at my own house, in the presence of my family, at 5 o'clock, P. M.

Rev. Mr. Covert, Principal of the Columbus Academical and Collegiate Institute, and his lady, being present at a sitting in my house—at the request of Mr. C., the patient, Mrs. R., was interrogated respecting his parents. She remarked that she did not see his father,—"he is dead." She saw his mother, a very aged lady—at first stated that she lived at a considerable distance from Columbus, she thought in the south. The facts in the case being entirely unknown to me, I continued to put such other questions as were suggested by Mr. C., when, after a pause, she continued, "I said his mother resides in the south, did I not? I was wrong, she resides in the east, in the state of New York."

Mr. C. requested me to ask whether he had lost any other relative within a few years. To this she replied, "he did lose a child, a little girl." She was in error as to the age, but as in the above case, after having answered other interrogatories, corrected the error. Mr. C. had lost his father and infant, as stated by the clairvoyant. If due time be allowed, it is but seldom that an erroneous answer will be given, and when given, it will generally be corrected.

In June last, at my own house, I requested Mrs. R. to visit and describe a relative of mine, whose health was feeble, without mentioning to her either name, course, distance, age, sex, business or disease. To each interrogatory, involving every particular enumerated, her answers were positively correct. My brother, H. B. Thompson, dentist, Cannonsburg, Pa., distance 167 miles east of Columbus,

was the person in question. Mrs. R. also said that my brother's wife was very unwell, and spoke in a low, hoarse voice, a fact at that time wholly unknown to any one present.

Mrs. R. had never heard of my brother or his family, nor was his name mentioned by a living soul on that occasion, until she named him as my brother.

The details in this case being much more minute than those here given, excited such an interest in my mind, that I communicated many of the particulars to my learned and estimable friend, Dr. D. S. Stephenson, of Cannonsburg, who had rendered faithful and valuable services to my brother. Of the Doctor's opinion of mesmerism, I knew nothing, but was inclined to believe that he might be favorably disposed towards it, from the fact that the subject had been handled freely in Pittsburgh, during the past winter and spring.

A few days afterwards, for the purpose of ascertaining additional facts respecting this mysterious influence, I inquired of Mrs. R. why Dr. S. had not answered my letter? At this moment she manifested uneasiness and displeasure, declaring that she did not like him—"he talks so curious. He does not believe in magnetism. He is showing your letter to your brother, and says some woman in Columbus has deceived you most egregiously. He is showing your letter to the people, and is laughing at you for being imposed upon—says he respects Dr. Thompson very highly, and thinks it strange that he should be duped by a woman. *He thinks he is a great man.*" Said I, do you think you see Dr. S? What is his appearance? Ans. "He is a tall, slender man—rather round shouldered—yes, one of his shoulders seems as if something was the matter with it. It is rather larger than the other and stands out behind. He has a bad cough and talks so queer. I don't like him. He don't believe in magnetism." Of the personal description of my friend, there could be no mistake: and in respect to his opinions upon the subject of mesmerism, and deportment toward and opinion of myself as connected with the subject, I should not be left to conjecture.

In his letter of August 12th, the Dr. says, "I will some day give you my opinion of mesmerism and of some other *isms* that are now exciting the gaze of this giddy, fast-travelling, hurly-burly, topsy-turvy, steam-power age."

In the presence of Mr. Joseph Sullivant, Mr. J. P. Espy, and Mr. H. Espy, at my own house, Mrs. R. in magnetic sleep, at the request of Mr. S., was interrogated in regard to the condition of the family of one of his neighbors, whose name he had purposely withheld. In answer to the question, "is there any one of the family alluded to, sick?" she replied, "Yes sir, there is a little child sick." She then described, according to the declaration of Mr. S., the diseased condition of the child very minutely, and mentioned several

prescriptions which would be useful in such cases. She said, the child would not recover—could not tell certainly how long it would survive. After she had mentioned the name of the child's father, at the request of Mr. S., I called her attention to the state of Mrs. S., the mother of the child. While engaged in a very minute and satisfactory exposition of the lady's health, the clairvoyant suddenly exhibited evidence of deep, internal emotion, as if occasioned by a present scene of distress. What distresses you, said I. "Oh, that child is dying." What do you mean to say, that it is dying now, or that it will die soon? "It is dying now—I see it—I don't like to look at it." On Mr. Sullivant's return home, he called to see his brother's child, and found it actually dying. Mr. S. resided in Franklinton, one mile west of this city, and was the only person present, who was at all acquainted with the case in question, and who, though he did not think the child would recover, did not entertain the opinion that its disease would terminate so soon—nor, so far as was known, did the physician in attendance anticipate a fatal issue.

As the multiplication of cases could only increase the length of this article, now much longer than was first intended, I shall add two or three, involving the illustration of magnetic cognition at much greater distances than either of the foregoing.

At a sitting, Dr. Morris, of Licking Co., Mrs. Thompson and myself being present, and Mrs. R—— in magnetic sleep, Dr. M—— wished me to request the clairvoyant to describe the diseased condition of one of his patients, residing nearly thirty miles from Columbus. This she did, with the utmost accuracy, though the disease was one of extraordinary complication—even mentioning a peculiar expression of countenance, and shade of complexion, with a slight halt in her gait, occasioned by a chronic affection of the muscles of the lame member, and an unpleasant agitation of the system, sympathetic of St. Vitus' dance. During this sitting, the only approximation to a failure, was with regard to Mrs. M.'s fire-place, Mr. R. being unwilling to state positively, whether the room was heated by a stove or a grate.

In the month of September, during a sitting at which Mr. Yeager, a German, of high intellectual attainments and respectability, was put in communication with Mrs. R——, the following striking incidents, going to establish the existence of distant magnetic cognition, were elicited.

Mr. Y. "I wish you to visit my mother, in Germany, and inform me of the state of her health. She resides in the family of my brother.

Mrs. R. "I see your mother: she is very aged—I should say, eighty years old. I don't see your brother: I see your sister—yes, she lives with her daughter. Her eyes do not appear right: there is something in her eyes that appears whitish; she is almost blind."

Mr. Yeager stated that Mrs R—— was right in every thing but one, which was, that his mother did, as his statement implied, reside with his brother. In a few days, however, he received a letter from his brother, stating that *the old lady had left his family, and had gone to reside with her daughter*, where she actually was at the time of the sitting. The same letter also informed him that his mother's loss of sight was occasioned by cataract.

Numerous other cases might be detailed, going to establish the fact, that distance interposes no obstacle to the mental or magnetic vision of a lucid clairvoyant. The cities of Dublin, New-York, Cincinnati, &c., &c., have afforded many illustrations, not only of the facts in clairvoyance, but also of magnetic cognition in its most extended sense.

I shall not at present detail cases, illustrative of celestial and spiritual magnetic cognition, which I might do most fully, but will close this communication, already too long, with a few additional reflections.

Methinks I hear an unbeliever suggest, that every fact stated, may be accounted for upon the principles of guessing—upon the doctrine of chance. I will frankly admit, that there have been, and *are even now*, many shrewd guessers; but, tried by experiment and the doctrine of chances, I hazard nothing in saying, that the unbelieving objector, when compared with the persevering inquirer, would fall, as one to a million, short of the truth, even in the *guess* upon which he predicates his present objection,

Another intimates, that, if these things be so, it invades the province, and encroaches upon the attributes of the Almighty. If, to inquire into the higher attributes and capabilities of the creature of God—fallible, mortal, and yet immortal man—that astonishing result of the union of matter and spirit—that everlasting, yet daily dying result of omnipotent power and wisdom: if, I say, to ascertain our own nature, in the highest possible degree, be an unauthorized encroachment upon the dominions of Jehovah, I, for one, have not so understood it. If, by an increase of the mental faculties and capabilities of man, we encroach upon forbidden ground, let us pause; let us abolish our systems of education; let us set bounds, beyond which it will be impious to pass, lest, in an unwary moment, we bring down upon our devoted heads the vengeance of heaven, for having extended our knowledge too far beyond the bounds assigned by our Creator.

Mesmerism exalts the powers of the mind in a degree almost inconceivable: but does it thence follow, that the results of its activity are to be ranked with the effective displays of the attributes of Deity?

Until a ray of light, a sunbeam, be held up in arrogant comparison with the great king of day, no sane mind will dare to compare the

mesmeric phenomena with the high attributes of heaven. But does it thence follow, that it is wrong to use the *ray of light which we possess*, in every possible manner, in every media, and in all its associate and correlative affinities, by which, not only the ray may be increased in effulgence, but even the whole universe will be presented more clearly to our view?

Should any one inquire what benefits are to be derived from mesmerism, I would beg leave to reply, in the language of Deleuze: "Of all the discoveries, which have excited attention, from the remotest antiquity, that of somnambulism, (magnetic somnambulism,) certainly gives us the most insight into the nature and faculties of man. The phenomena, to which it has drawn our attention, demonstrate the distinction of two things—the two-fold existence of the *internal* and the *external* man, in a a single individual: they offer a direct proof of the spirituality of the soul; they make evident the truth, known to ancient sages, and so well expressed by M. de Bonald, that *man is an intelligence, served by organs.* This advantage cannot be too highly appreciated, especially in an age, when audacious minds do not fear to employ the researches of physiology to shake the certainty of the interior sentiment, which reveals to us the dignity of man, his supremacy in the order of creation, and his moral liberty—a sentiment which is the basis of social life, and which engages to the practice of virtue, by pointing out to us, in a future life, the developement of our earthly existence, and the recompense of sacrifices, made to obey the dictates of conscience.

"On the other hand, somnambulism makes known to us the means of curing diseases which are curable, and of relieving those which are not; it serves to rectify the errors of medicine as well as those of metaphysics: Finally, it points out the origin of a great number of opinions, prevalent anterior to the experiments which have confirmed their correctness; and it restores to the order of nature a multitude of facts, which philosophers have disdained to examine, either because ignorance and credulity had altered some of their circumstances, or because, in some of the dark ages, thay were made to serve as the foundation of superstition."

CLINICAL REPORTS AND CASES.

ART. II.—*Clinic* of Prof. HARRISON, Commercial Hospital, Cincinnati. *Remarks on Jaundice.* Delivered before the Class attending the Summer Lectures.

GENTLEMEN:

I solicit your careful consideration of a subject, involved in serious practical difficulty. I allude to that form of disease, or rather, symptom of disease, denominated jaundice. There are several points of grave practical interest connected with the pathology and treatment of this particular deviation of the hepatic function. On two points, there can be no misconception: first, that jaundice is, in some way, connected with a disordered condition of the liver; second, that it is at times associated with severe disease of other and even more distant organs.

But on three points very serious and pernicious errors have been indulged, as respects the true character of jaundice, and of its appropriate method of treatment. The first error, and that most generally entertained by medical practitioners, is this—confounding the icteric hue of the skin with one special state of the hepatic apparatus. Now remember, that the liver may be deranged functionally as well as structurally, and consequently, that you may have a jaundice dependent on either a mere deviation of healthy function in the liver, or it may be related to an impairment of structural integrity of that viscus. The error adverted to regards the icteric aspect of the patient as originating in a primary hepatic disorder, arising from a mechanical obstruction, resisting the influx of the bile into the intestinal canal.

The second error, which closely stands related to the one already commented on, regards jaundice as a veritable disease, instead of the symptom of a disease, and forces such constructive pathology into the therapeutics of the case.

The third error considers jaundice as always dependent on the entrance of bile into the blood, from its absorption by the lymphatics, or lacteals, after its secretion by the liver.

What, however, is this disorder? We answer—first, it is a symptom of varying and diverse states of the hepatic apparatus; second, jaundice does not depend upon presence of real bile in the blood, but

only the coloring principle of that fluid; third, it is a light, or a grave malady, not according to the quantity of the hepatic coloring matter in the blood, but in a direct ratio to the intensity of morbid action going on in some important vital part, from which the jaundice sprung, and of which lesion it is sympathetic.

These are the varieties of jaundice which you will be called upon to treat in your future practice: 1. Jaundice from disordered function of the liver; 2. from structural lesion of the liver, and mechanical obstruction of the ducts; 3. from gastro-enteritis; 4. from cardiac disease; 5. from pulmonary inflammation; 6. from cerebral inflammation. Upon each of these distinct varieties of jaundice, I propose not, on this occasion, to dilate; but my present design is to give you two cases of fatal jaundice, which occurred in this Hospital, and deduce some practical reflections from them.

The first case occurred during our attendance on the Hospital in 1841. The man was most intensely colored with the icteric hue—had some fever, though not of a very high vascular action—his abdomen was very painful upon the least degree of pressure—stomach very irritable, and bowels had been severely purged by a dose of calomel and some salts, which he took before he came in. This patient had an attack of ague and fever, and subsequently, slight fever. Upon examination, I decided that enteritis existed in his case, and that the jaundice arose from that morbid condition of intestinal mucous tissue. Various remedial measures were employed, but with no evident melioration of the symptoms; and on the third day of his admission he died, having previous to death, petechial spots diffused extensively over his skin. *Sectio cadaveris.*—The stomach was inflamed to a partial degree, and the ileum likewise; but the mucous surface of the colon was of very dark hue, to the extent of five or six inches. The gall ducts were permeable, and the liver bore no marks of disease.

CASE 2d. The history of this case you are familiar with. You recollect the old man, who lay in the east end of the long ward. He was sixty-five years old—had been an old toper, and having lived in this city many years, was a frequent inmate of this house. Once he had a protracted cough, and it was thought that he would die of phthisis, but he escaped, and went back to his old tricks of dram-drinking, and tumbling about and into the gutters. On the 3d of

March he took up his final residence in the Hospital, and after being ill four months, he died.

The icteric appearance of the skin came on four weeks from his admission, after having been treated for some obscure disorder. When he came in, his only complaint was severe pain in the lumbar region of the back. For this he took oil of turpentine, and was blistered. A few days subsequent to the employment of these remedies, he complained of pain in the abdomen, and in the limbs, for the removal of which pain in the abdomen and in the limbs, he took opium and tincture of guaiacum. The skin assumed the jaundiced hue on the 4th of April, and now the stools became decidedly light colored, and the abdominal pain was augmented. Various remedies were prescribed by the attending physician. Among other means employed, calomel was given till salivation came on; muriate of ammonia was freely used with no benefit—wild cherry tree bark tea, carbonate of potash, extract of cicuta, nitro-muriatic, bath, &c.

I saw him on the 1st May, and you know with what assiduity various remedial agents were fruitlessly, and copiously, I may add, brought to bear on the case. You recollect, before death, a tumor was felt for ten days, on the right side of the abdomen, which we pronounced an enlarged gall-bladder; and you will keep in mind what severe suffering he experienced, whenever pressure was made on the abdomen, whether on the right or left side.

Our diagnosis was inflammation in the mucous lining of the duodenum, with perhaps ulceration—permanent obstruction in the hepatic ducts, from some organic lesion of the liver. Prognosis, a fatal issue. [The Professor exhibited the specimen.]

Here we have a rare assemblage of pathological changes in the abdominal and thoracic viscera, the result of this protracted attack of jaundice. The pancreas, you observe is enlarged and indurated, its pressure on the ductus communis choledochus has entirely prevented the escape of bile into the duodenum. The gall-bladder is much enlarged; now we open it, and you see what a quantity of fluid, colored yellow, flows from it; and here in its mouth, we have two irregular shaped gall-stones, each of the size of a cherry-stone, and of a very dark color, lying in the mouth of the gall-bladder. The liver is of a nutmeg aspect, and at its lower edge, we have lymph effused, which has produced adhesion between it and the gall-bladder. There is inflammation in the duodenum, and general peritoneal inflammation.

More than a gallon of yellow colored water was found in the cavity of the abdomen. But what has astonished us, in this case, is, the very extensive tuberculous deposition in both lungs. No such lesion was suspected, and therefore no particular examination was made by percussion and auscultatiou, to determine whether any pulmonary disease existed.

You see that in this case of jaundice, we have mechanical obstruction from diseased pancreas, and from gall-stones; inflammation of the duodenum; chronic peritonitis, and entensive structural alteration of the lungs.

Which of these was the cause of the jaundice? The state of the pancreas preceded, perhaps, the other lesions; but there existed a sufficient amount of disease in the duodenum to cause the icteric hue of the skin, without any other lesion. This man did not see objects of a yellow appearance, though the jaundiced color was very intense. The brain, as you perceive, is untinged with yellow; so are its membranes. The fibrine of the blood is, you see, very yellow.

Let me warn you, gentlemen, again and again from an empirical routine practice in this, and in all other maladies for which hereafter you may be called to prescribe. Keep in mind, that jaundice is but a symptom, which may depend upon a slight functional irregularity of the liver, or it may spring from structural lesion of that organ, or from mechanical obstruction, hindering the onward progress of the bile from the acini through the ducts to the intestinal tube. But, the most serious cases of jaundice are those in which the pathological element consists in inflammation of the mucous coat of the alimentary tract.

One species of jaundice, called bilious pleurisy, is a very dangerous disease. Here, there exists pneumonitis in the right lobe of the lungs, which, by contiguous sympathy, spreads through the diaphragm to the liver. The icterus neonatorum, or infant jaundice, is a common and slight complaint.

Wherever you have good grounds to believe inflammation exists in the intestinal tube as the cause of jaundice, employ local bloodletting and blisters; avoid purgatives, ard give minute doses of calomel, with hyoscyamus. One grain, or even a half of a grain of calomel, with one fourth of a grain of the extract of hyoscyamus, every three or four hours, will answer. For functional jaundice, you may give pills, composed of blue mass, extract of cicuta, two grains each, and

one grain of ipecac, every four or six hours. The wild cherry tree bark tea, with carb. potash, is a good remedy in mere functional jaundice.

Calomel is often sadly abused in this disease. We have seen the disorder induced by a harsh emetic, and likewise by large doses of calomel. The local application of mercurial ointment, by dressing a blister with it, applied over the liver, will sometimes do more to arouse the proper action of the liver than large doses of mercurial cathartics. In obstinate cases of jaundice, where no serious structural lesion of the liver exists, and in which no permanent mechanical impediment prevents the influx of the bile into the duodenum, the nitro-muriatic acid should be tried, both internally and externally.

In bilious pleurisy, after the lancet, local bleeding, and blistering, mercury, to its decided constitutional agency, must be called into requisition. One grain of calomel, repeated every fourth hour, will remove, in a day or two, the jaundice of infants.

ART. III.—*Amputation on account of Enlargement of the Knee Joint.* By G. VOLNEY DORSEY, M. D., of Piqua, O.

Adam Beamer, the subject of the present operation, was brought to this place in June, 1840, from the county of Van Wert. His age was about twenty-two years. The history, given of his case at that time, was, that about one year previously, he was affected with severe pain in the right knee, of which no very obvious cause could be assigned, though he was inclined to attribute it to an injury received in leaping. He was treated by some Physicians in that section of the state, by blistering, cupping, &c., but without any relief. About three months before I saw him, his knee began to swell, and increased very rapidly, so that, at the period of my examination, its circumference, immediately about the joint, was thirty-seven inches, declining gradually on each side, and extending about half way to the hip joint above, and to the ancle below. Beyond these points, there seemed to be but little disease, though the limb was enlarged to almost double the size of its fellow. The swelling was hard, and not painful to the touch; the veins, ramifying on the external surface, immensely enlarged: the great weight and pressure had caused some ulceration on the inferior parts of the tumor, augmented probably by the heat of the weather,

and by travelling many miles over very rough roads, on a bed imperfectly suspended in a small wagon. His constitutional symptoms were, extreme debility, hectic fever, cough and copious expectoration, diarrhœa, and emaciation to such an extent, that the tumor and limb removed, would doubtless have weighed one third or more of his whole body. As the swelling was rapidly progressing, and the constitution sinking, it was determined at once to amputate, as the only possible means of saving life. I accordingly proceeded to operate in the presence of all the physicians and a number of the citizens of the town. It being necessary to cut as high up as possible, from fear of disease of the bone, the tourniquet could not be used, but the artery was compressed in the groin by an able assistant. Contrary to the usual opinion in regard to the upper third of the thigh, I performed according to the flap method, plunging the knife directly through the thigh from above downward on the outside of the bone, and cutting out a flap of half the diameter of the stump, then entering and bringing out the knife at precisely the same points on the inside of the bone, another flap was made, the parts retracted and the bone sawed, all which was done in less than one minute. Two arteries and the femoral vein were secured, the flaps brought together by adhesive plaster and dressed with basilicon; less than a pint of blood was lost, which was fortunate for my debilitated patient. The femoral vein was unusually small, the medulla of the bone appeared slightly dark. No bad symptoms supervened, but on the contrary all the unfavorable constitutional symptoms disappeared at once, with the exception of the diarrhœa which was troublesome for a few days, and the patient declared he slept better the night succeeding the operation than he had done for months. In two weeks the wound was half healed: the last ligature came away on the 30th day.

This case is interesting from the immense size of the tumor, being, I believe, among the very largest that have ever been amputated with success, and also because it gives evidence of the great recuperative powers of the system, which often rallies when reduced to the lowest ebb, provided the cause of disease can be removed.

One word on the subject of the flap operation, now, I believe, fortunately for humanity, becoming tolerably general. I have used it in amputation in various situations, above and below the knee, and on the arm, and always with the most satisfactory results. It isinfinitely more speedy than the circular method, and consequently produces less

suffering; but the great advantage is, that by any common care, all possibility of protrusion of the bone, with all its dreadful consequences, is avoided with perfect certainty.

This tumor when examined after amputation, presented the appearance of a fungous growth, originating from the medulla of the lower third of the os femoris, and arising to the height of about twelve inches, carrying the flesh and muscles, which seemed tolerably sound, before it. The patella and the head of the tibia were enlarged and disposed to soften,—all the ligaments of the joint much diseased and distended by the fluid which occupied its cavity, to the amount of at least a quart—no pus was discernible—the fungous growth was of a yellow color, and hard gristly consistence, springing directly from the medulla, destroying the upper half of the circumference of the bone, and branching widely upwards and on both sides.

This patient recovered entirely from the operation, but died, as I have understood, about eighteen months afterwards from an attack of bilious fever.

ART. IV.—*Case of Radical Cure of Umbilical Hernia.* By W. B. DODSON, M. D. of Louisville, Ky.

By the advice of my worthy friend, Dr. Galt, I was called to see a small colored boy, belonging to D. Strother Esq., aged about two years and eight months, afflicted with congenital umbilical hernia, which was reduced without any particular difficulty, but reappeared, to its full extent, as soon as he assumed the erect position. He was healthy, and remarkably large and active for that age. The pain and distress about the umbilicus gradually augmented as the protrusion became larger.

The sac or external tumor was three and a half inches in length, and about three inches wide, or across from side to side, formed of the integuments around the umbilicus by the constant protrusion of the intestine, and propulsion of the abdominal viscera.

The umbilical arteries were plainly and distinctly felt beating on the side of the neck of the sac, which was about one inch and a quarter in width, from side to side, and three fourths of an inch thick, vertically.

Not having such an instrument as was desired, I appplied a more common one, with the inferior third of the block cut away—supporting the sac with an appropriate bandage. 8th. Saw the patient, and adjusted the instrument; 16th, the sac contracted, thickened, and more firm—made some alteration in the instrument, and reapplied it.

From this time, until the 21st of June, I saw him frequently; and he appeared to be doing as well as I could have expected, with the kind of instrument then in use.

At the last named date I applied a newly constructed truss, which fitted well. The blocks were made to grasp the neck of the sac with considerable firmness, so as in part to arrest the circulation.

On the 22d, I found a sufficient degree of irritation developed, to require a less degree of pressure. July 1st. adjusted the instrument, owing to a slight superficial ulcer; 3d. doing well. About this time the patient was sent into the country for four or five weeks, during which time the instrument became misapplied; and, on his return to the city, I found a slight protrusion of the hernia on the right and inferior edge of the ring, probably as large as the end of my index finger. I readjusted the instrument, from which time the patient went on doing well, and the ring very speedily closed up. I saw him at intervals, but nothing of importance occurred until the 28th of November, when I was sent for to see the patient, as he had fallen from a fence and misplaced the instrument, which caused a small ulcer on the superior part of the neck of the sac. Upon a thorough examination, the cure was found to be perfect. I then determined to remove the remains of the sac with the knife, which I did on the following day (29th,) in presence of Drs. McDowell and Wilson, of the Louisvile Marine Hospital. Dressing simple. December 1st. dressed the wound, which looked well; 4th. do; 8th. nearly healed; 14th. perfectiy well. He was a favorite boy, consequently his crying and screaming most inordinately, during the application of the dressings could not be controlled, which thoroughly tested the strength of the parts.

On the 8th January, 1840, the patient was brought before the Medical Class, and examined by Professor Flint, of the L. Medical Institute.

The umbilicus presented a natural appearance, there being no physical sign or indication of his ever having been ruptured.

BIBLIOGRAPHICAL NOTICES.

ART. V.—*The Sanative Influence of Climate.* By Sir JAMES CLARK, Bart., M. D., F. R. S., Physician in Ordinary to the Queen, and to the Prince Albert. From the last London Edition. *Philadelphia:* Ed. Barrington & Geo. D. Haswell. 1843—pp. 196.

This is a very accurate reprint, from the last London edition, of the well known work of Sir James Clark, on the influence of climate in the production and cure of diseases. It is unnecessary to say any thing in favor of this work, as its value is too well known to the profession to require any fostering at this period. The present edition is greatly superior to its predecessors. *Omissions* and *additions* have been made, so as to improve the work in a very material manner. An appendix has also been added, giving some account of the climates of the colonies belonging to the Southern Hemisphere. For sale by Desilver and Burr, 112 Main st.

ART. VI.—*Changes of the Blood in Disease.* Translated from the French of M. Gibert. By JOHN H. DIX, M. D., M. M. S. *Philadelphia:* Ed. Barrington & Geo. D. Haswell. 1843—pp. 59.

The treatise of M. Gibert, which was presented to the Faculty of Paris, at the *Concours* for the chair of *Pathologie Interne*, is elaborate, and exhibits a very good view of the relations of the blood to the morbid conditions of the system. There seems to be, however, a degree of vagueness, and want of precision, pervading the work, that detracts from its value; and, moreover, it is so encumbered by references to authors as to embarrass the reader. But, notwithstanding these defects, M. Gibert's essay is valuable, and should be carefully studied by the profession generally. For sale by Desilver and Burr, 112 Main st.

ART. VII.—*The Kidneys and Urine.* By J. J. BERZELIUS. Translated from the German, by M. H. Boyè, and F. Leaming, M. D. *Philadelphia*: Lea & Blanchard. 1843—pp. 179—8vo.

The great importance of the kidneys in the animal economy, in health and in disease, is well known to the physiologist and pathologist. Being one of the great depurating organs, by which effete matter is conveyed out of the system, the renal emunctories present claims to consideration, not inferior to any glandular organ of the body; and the great obscurity that involves many of its deviations from a normal condition, especially in the *incipient* and *curable* stage; and further, the impossibility of diagnosticating these changes, without the aid of chemical analysis, all combine to excite our interest in a work, which, in the most plain and simple, yet perfect and thorough manner, unfolds this subject. We cannot too strongly recommend this treatise to the practical physician; for, although the subject is complicated, and the conditions of the urine multifarious, yet the master mind of Berzelius has completely divested it of the greatest difficulties; and such rules are given as to enable all to arrive at safe conclusions. For sale in this city by Desilver & Burr, 112 Main st.

ART. VIII.—*An Introduction to the Study of Medicine*; being an outline of the leading Facts and Principles of the Science, as taught in a course of Lectures, delivered in the Marschal College of Aberdeen. By John Macrobin, M. D., etc. *Philadelphia*: Ed. Barrington & Geo. D. Haswell. 1843—pp. 127.

A work on Practical Medicine of only one *hundred and twenty-seven* pages, will very probably lead to the belief that its brevity is incompatible with usefulness. This opinion, if formed with reference to a *general system*, would be true; but when we reflect that the book before us is only intended as an *introduction*, or to present an outline of the facts and principles pertaining to practical medicine, it becomes a desideratum that brevity and perspicuity should be a part of its attributes. It is, therefore, a recommendation, considering the objects of the author, that the book numbers so few pages.

Dr. Macrobin's work is largely made up of the *principles* of medicine, embracing the pathology and etiology of disease, and may therefore be esteemed as a *nucleus* around which the student may, with advantage, gather a more extended system. For sale by Desilver & Burr, 112 Main st.

MISCELLANEOUS SELECTIONS AND INTELLIGENCE.

1. *Extirpation of the Uterus immediately after Delivery.*—Rossi exhibited to the physicians, assembled at the Medical Convention of Florence, in Italy, a uterus, which was extirpated by a midwife immediately after delivery. After having delivered a feeble woman of a child and placenta, the attending midwife felt a tumor in the uterus, which she thought to be a second child, and pulled at it with such a force, as to separate the womb from its appendages. She, however, was not at a loss what to do, but finished the operation by taking a knife and cutting off the uterus: nevertheless, the wound healed within thirty days.—*Sprengler's Leistung. d'operativ Chirurgie in* 1842.

F. R.

2. *Water not almighty yet!*—The well known Water Doctor, Priesnitz, in Graefenberg, was taken with inflammation of the lungs. True to his old doctrines, he applied to his chest, and frequently drank cold water, but the disease grew worse and worse on him, so as to compel him at last to consult a neighboring Surgeon, who instantly made a large venesection. The dangerous symptoms immediately abated, and his good physical constitution was enabled to remove the remainder of the disease.—*Starke, in Graefe's and Walther's Journal der Chirurgie, &c. Augenheilkunde, Bd.* xxx., *Hft.* 2.

F. R.

3. *Supposed Antivariolous Properties of Tartar Emetic Pustules.*—M. Lichtenstein has published a curious article on this subject, in "Hufland's Journal." His attention having been excited by the similarity of appearance between the smallpox and tartar emetic pustules, he was led to make some experiments on the properties of the latter. Clear lymph, taken from the pustules produced by friction with the tartar emetic ointment, was introduced, in the usual manner, underneath the epidermis of persons who had not been vaccinated. It gave rise to pustules which it was impossible to distinguish from those pro-

duced by vaccine matter. The lymph of the tartar emetic pustules was inoculated from individual to individual, and invariably gave rise to pustules of the same form, and attended by the same symptoms.

Since the year 1836, the author affirmrs that he has practiced thirty-one vaccinations and re-vaccinations, with the matter from tartar emetic pustules: the persons, thus vaccinated, were placed in intimate relation with individuals afterwards affected with the smallpox, during an epidemic of that disease, and they all escaped contagion.

Many further experiments will be required before the conclusions of the author can be admitted.—*Amer. Jour. Med. Science—from Prov. Med. Jour., Nov.* 5.

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4. *New Caustic.*—M. Payan, senior surgeon to the Hotel-Dieu of Aix, speaks favorably of a new caustic paste made with the sulphate of copper. A sufficient quantity of the sulphate, reduced to powder, is mixed up with the yolk of an egg, so as to form a soft paste of a deep green color. It is applied on a piece of lint, and when removed does not leave behind it the loss of substance, or unsightly scars, which commonly follow the use of other escharotics. In illustration of the efficacy of this remedy, M. Payan relates the case of a soldier, affected with malignant pustule of the cheek. A circular piece of diachylon was placed on the cheek, and a hole, about the size of a two-shilling piece, cut in its centre; through this the caustic was applied on a bit of lint. For five or six hours the patient experienced some degree of pain, but this was not very severe, and subsided; the caustic was removed at the expiration of ten hours, when the surface of the pustule presented a blackish gray color; the adjacent parts were somewhat swollen and red. The local inflammation being thus modified, the eschar was allowed to come away of itself, and at the end of three weeks the wound was completely cicatrized, with scarcely any mark, save a very slight depression in the center. M. Payan concludes that this caustic might be advantageously employed in certain cases of lupus; but it does not appear he speaks from actual experience of its efficacy in this disease.—*Ibid.* from *Bull. Gen. de Therap.*, Dec. 1842.

5. *Leucorrhœa cured by Iodine.*—M. Ch. Van Steenkiste has published the details of two cases of leucorrhœa treated with iodine injections, in the "Annales de la Societè Medico-Chirurgicale de Burges." The first case in which he tried it was that of a sempstress, twenty-two years of age, of a scrofulous constitution, who had labored under leucorrhœa three years. The discharge was thick and abundant, and of a milky or slightly yellow color. The patient presented all the symptoms of anæmia; the mucous membrane of the vagina was very pale, the cervix uteri red and tumefied. The genitals were excoriated. An injection, containining four scruples of iodine, sixty of alcohol at 25°, and 125 of common water was ordered for her, of which about thirty scruples were thrown up into the vagina. Heat and irritation were immediately experienced in the parts, and the discharge ceased entirely for three hours, returning then in larger quantity than ever, accompanied for a few minutes with very severe pain in the genitals, headache and general spasms. These symptoms soon disappeared, and the discharge did not again return till the next day, when the same quantity of iodine was injected, less severe symptoms following its use. The catamenial secretion, which had been absent seven months, appeared towards evening, and continued for three consecutive days, unaccompanied by any other discharge. On its cessation, the leucorrhœa again showed itself, but less in quantity than before. M. Steenkiste, desirous of retaining the iodine more in contact with the vaginal mucous membrane than it had been previously, introduced a speculum, with the assistance of which he filled the vagina with five pieces of charpie, soaked with the iodine, and left them there, intending to remove them in an hour's time. Four of these pledgets were expelled by pains which came on in the interval, and when the surgeon sought to withdraw the fifth he could not introduce the speculum, the vagina was so contracted. The cure thus induced has been permanent, and the catamenia have again appeared. The second case was equally satisfactory.—*Ibid.*—from *Prov. Med. Jour.* April 22.

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6. *Turpentine in Hemeralopia.*—Charles Kidd, Esq., relates in the *Dublin Medical Press* for 10th May, 1843, two cases of Hemeralopia which had proved refractory to various remedies, and which were cured by the following mixture: ℞ Ol. Terebinth. ol. Ricini aa ℥j; Mist. Camphora ℥iv; Liquor potassa ʒj; Tr. Opii gtt. x. Ft. Mist. A large table-spoonful every morning and night.

7. *Glossitis in an Infant.*—Surgeon KOETTL relates a case of glossitis in an infant only nine days old. The affection having resisted the application of leeches to the sides of the windpipe and other treatment, the child's mouth was opened and a longitudinal incision made along the dorsum of the tongue. This was followed by free bleeding, and in two hours the tongue was reduced to half its former size. The patient recovered.—*Ibid.* from *Oester Med. Wochens.* No. 47, 1842.

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8. *An English General Practitioner.*—On a cottage window near Plymstock is the following:—" I ——Parish Clarck Seargeant, tacheth yong Garls and Bouys to rade and rite daleth in mole candals sugar plums rish-lites comes, mole traps, mouse traps, spring guns, and all other sich maters—teeth distracted, blid drawn, blisters, Pils, mixtures maid, also nails, and hosses shoed, hepsome salts, and cornes cut, and all other things on rasonable Tarmes.—N. B. and also my Misses goes out has man whidwife in the cheepest way posuble. —*Dublin Med. Press*, March 22, 1843.

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9. *Somnambulic Dogs.*—One of the most interesting and (as we are gravely informed convincing proofs of the truth of Mesmerism, have recently been crushed in the bud by the ignorance and perverse activity of the French police.

Driven from the scientific societies and finding that public credulity was becoming rather slack, the mesmerists hit on a novel expedient, which at least had the merit of silencing all accusations of trickery and collusion. They hired a small theatre, and brought a company of somnambulic dogs. But the wickedness of man respects nothing, and the brightest plans are often blasted by the most ignoble of persecutors. Scarcely had the actors placed their four paws on the stage when the *sergens de ville* rushed in, and consigned both beasts and Christians to the safe keeping of the station-house.—*Med. Examiner.* from *Prov. Med. Journ.*

10. *Black Cataract.*—At the Academy of Sciences, Paris, May 29, 1843, M. Magne forwarded the following case of this rare and curious disease:

A female, above sixty years of age, had labored under some affection of the eyes, for which she had consulted a great number of oculists. She was quite blind; the eye-balls were prominent; the sclerotica appeared to be thin; the iris well shaped, but perfectly immovable; bottom of the pupil dark as in the healthy state.

From these and other symptoms, the disease was supposed to be amaurosis. A second examination of the patient was made in a darkened chamber, and with the aid of a candle, as recommended by M. Sanson. The deep-seated images were absent, and the author accordingly declared the case to be one of black cataract, with adhesion of the iris. The diagnosis having been confirmed by M. Cruveilhier, the lens on the right side was depressed, on the 25th of March, 1843. The adhesions of the iris were numerous; but as soon as the capsule was lacerated, the dark color of the lens became evident, and, on depressing it, several black fragments were detached.

On the second day after the operation, the pupil appeared to be less contracted, the base being quite dark; but on the following day it was closed by a white substance. M. Cruveilheir regarded this as the lens, which had come forward, after having lost its dark color in the vitreous humor. The operation was unsuccessful, and was, therefore, repeated in a fortnight; but the first touch of the needle showed that the body, supposed to be the lens, was, in reality, the capsule, which was extremely soft and elastic. A few shreds were removed with much difficulty, and the patient recovered but a very imperfect power of vision.—Med. Examiner—from *Prov. Med. Jour.*

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11. *The Use of Elder Bark in Chronic Dropsies.*—The decoction and extract of this vegetable substance are reported to be remarkably efficacious as hydragogues, producing so speedy an effect on the urinary and fæcal secretions as to make it needless to use more than two or three applications. The proportions for the decoction consist of a couple of handfuls of the bark to a quart of water: dose, a wine-glassful a day. The extract is administered in France in the form of pills, of one and a half grain each, of which from six to ten are taken in the 24 hours.—*Ibid.*—*Prov. Med. Jour.*

12. *Diseases of Oregon.*—The interior regions are, as I have before stated, as healthy as any portions of the world. But you will desire information of this division. To express myself in general terms, I do not consider the country either as peculiarly healthy, or as peculiarly unhealthy. The diseases of the country are principally colds, influenzas and intermittent fevers, all of which are generally of a mild character. To these we may add, among the Indians, consumption; of the latter, great numbers of the natives die annually. I have, however, never known but two white persons to die of this disease, nor do I now recollect to have ever heard of any but the two, laboring under pulmonary affection; and these cases were never attributed to the country. Previous, I believe, to the year 1819 or 1820, a ease of fever and ague was never known in the Territory. About this time it commenced its fearful ravages among the Indians, and has continued ever since, though greatly mitigated in its character. In one day's ascent of the Wallamette in a canoe, I have counted nine depopulated villages; in some instances whole tribes nearly annihilated, and the few desolate survivors fled from the death, and identified themselves with their less unfortunate neighbors. In thousands of instances where the disease did not itself prove fatal, by being long protracted, it induced others, which soon brought the sufferer to his grave, and ushered him into the far spirit-land whither his wives and babes had already gone. To protracted fever and ague, is no doubt attributable most of the pulmonary diseases before mentioned. This fever yields readily to prompt medical treatment, and I have never known it to prove fatal to a white person; indeed, the administration of the mildest cathartics followed by the usual tonics, is generally sufficient to arrest it in a few days. This unprecedented fatality among the natives, extended from the coast about 50 miles farther inland; and from the columbia south, to within 50 miles of San Francisco in California, a distance of near 600 miles. Over the vast region did the dark angel of death move his leaden sceptre—the children of the forest knew no remedy and died—

> Died the stalwart chieftain and his slave—
> The frenzied mother and her babe.

And often, when wearied in his far sojournings, has the humble writer pillowed his head upon bones which the destroyer had left none to

bury. But this fatality was confined exclusiuely to the natives—and from the health enjoyed by the whites, the country may be safely placed in the category of the healthy. Persons whose judgments are entitled to high regard, think that the former prevalence of the intermittent fever was attributable to the temporary causes, and that it will finally disappear. In the point of health, however, this division will never rival the interior and less fertile portions of the Territory.—*Edward's Sketch of Oregon.*

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13. *A Hint to Magnetizers.*—M. Richard, professor of magnetism, and Mlle. Virginie Plain, somnambulist, have been condemned to six months imprisonment by the police magistrates at Niort, (France,) under an accusation of "swindling."—*Prov. Med. Jour.* Med. Examiner.

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14. *Results of Homœopathy.*—We regret to state that another of the Earl of Denbigh's family has fallen a victim to the theory of infinitesimal doses. His lordship's third son died, last week,, from accumulation of mucus in the air passages, the result of hooping-cough. An emetic is usually employed in cases of this kind to free the bronchia: but whether the homœopathic fractions of ipecacuanha produced this effect or not we have not heard.—*Prov. Med. Journ.* May 20, 1843.

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15. *How to make Leeches bite.*—The leech, which it is intended to apply, is to be thrown into a saucer containing fresh beer, and is to be left there till it begins to be quite lively. When it has moved about in the vessel for a few moments, it is to be quickly taken out and applied. This method will rarely disappoint expectation, and even dull leeches, and those which have been used not long before, will do their duty. It will be seen with astonishment how quickly they bite.—*Med. Ex.—from Weitenweber's Beitr., and Schmidt's Jahrb.*

Case of Extra-Uterine Fœtation.—By Harvey Lindsly, M. D. —On the 13th inst., about 7, P. M., I was called on by I. M., who informed me that his wife was in extreme pain from a severe attack of colic, and requested my immediate attendance. Upon arriving at her residence, I found her writhing in agony with pain, as she said, in her bowels, and which had then continued about three hours. The abdomen was considerably swollen and tender to the touch—the surface rather cold and bedewed with a clammy sweat—the stomach nauseated, but not attended with vomiting—and the patient, generally, very restless. She said that she had been as well as usual during the day, and had discharged her ordinary household duties without difficulty until about 4 o'clock, P. M., when the pain with which she was now suffering commenced. She asserted that she was not pregnant, and had not been for the last ten years, though she had not menstruated for the preceding two months. She possessed a good constitution, generally enjoyed good health, about 30 years of age, and had had but one child who was now ten years old.

I prescribed pills of opium and camphor, to be continued till the pain was controlled, and stimulating frictions to the extremities for the purpose of exciting cutaneous action.

At 7 o'clock, next morning, the husband informed me that his wife (whom I had not seen a second time, as she lived a considerable distance from my residence) had been much relieved of her pain by the pills, but was in a very low and critical condition. Upon arriving at her house, at 8 o'clock, I found her *dead*—having expired a few minutes before.

At 12 o'clock, I made a *post-mortem* examination, in the presence of my office students. The abdomen was very much swollen, but presented no symptoms of tympanitis upon percussion. When the abdominal parietes were divided, a large quantity of blood escaped, and upon examination the whole cavity was found to be filled with it —while several large coagula were scooped out from its lower part. All the viscera of the abdomen appeared perfectly healthy. When the blood was nearly all removed, and the intestines retracted, the cause of all this mischief was immediately perceived, in the shape of a well-formed fœtus of about two months, laying loose in the pelvis, and connected to its placenta by a cord of the ordinary length. It was extra-uterine pregnancy, the fœtus being obviously contained in the Fallopian tube of the left side, which had just burst from the increased size of its contents, and had thus given rise to the fatal hemorrhage. The uterus was slightly enlarged, and upon slitting it open, was found lined with the membrana decidua, which, according to our standard authors, is usually found in such cases.—*Bost. Med. and Surg. Jour.*

THE WESTERN LANCET.

CINCINNATI, AUGUST, 1843.

HOMŒOPATHIC DECEPTIONS.

Our readers are doubtless familiar with the title of "Jahr's New Manual of Homœopathic Medicine," a work heretofore highly prized by the *infinitesimal* disciples, and used by them as a guide in practical medicine. In this work the system was supposed to be perfected in an extraordinary degree, having undergone sufficient trituration to ensure a full development of all the latent powers of *nothing*. But a discovery has recently been made, connected with this work, of a novel character, and such it is to be feared as will cause a relapse of all the patients cured by its imaginary agency—therefore we advert to the subject with great caution. Curtis & Lillie, homœopaths, have published "*An Epitome of Homœopathic Practice*," compiled from Jahr and others, in the preface to which, they announce that *Jahr* cannot be relied on, as a great portion of his work is purely *fiction!* This is homœopathic testimony, and we have never seen a more appropriate illustration of their stereotyped text—"*similia similibus curantur*,"—for like will cure like, in this instance, by exposing the fallacy of their own system.

This discovery is not worth much so far as homœopathy itself is concerned, for, although Jahr succeeded in introducing this work as a specimen of perfection, yet little of the work could be comprehended; and that little was not believed by any sane man. We would regard it as conclusive evidence of insanity, for any man's credulity so far to preponderate over his judgment as to believe in the truth of Jahr's assertions.

Although Jahr's manual is now an admitted work of fiction, yet it bears such a strong family likeness to other homœopathic works, as

to entitle it to as much credence as is due any of their productions from the Organon down. Indeed, we regard the whole scheme as the product of the wildest fancy, totally unsupported by a single fact known to man. The whole of creation may be ransacked from the most stupendous spheres down to the *infinitesimal globules*, and in the world of mind, from the perfection of reason *down* to homœopathic insanity, and not one fact in support of infinitesimal doses of medicine has been, or ever can be found.

A statement has recently been put forth, and we believe favorably commented on by some of the papers of this city, that in the Auburn State prison, N. Y., homœopathy had proved transcendently successful. Dr. Humphreys introduced this practice into the prison, and in a report to the Inspectors he asserts, that from the 2d of December, 1841, to the 3d of April, 1843, there was no death in the Hospital, and the cost of Medcine was only $71. This success is contrasted with the succeeding nine months under the supervision of Dr. Pitney, during which period the deaths are stated to have been *seven*, and the cost of medicine $283.

This however is an *ex parte* statement, and the other side of the question proves that homœopathic veracity was so *infinitesimal* that it failed to produce the *whole* truth. Dr. Pitney, in an address before the Cayuga Medical Society, proves, that the period selected by Dr. Humphreys as a sample of Homœopathic success, was one of unusual good health; but that during the seven preceding months of homœopathic administration, there were *five* deaths, and medicine cost $230! Dr. Pitney also refers to various periods from 1826 to 1839, in which no deaths occurred, and no homœopathic medicine was given. Such are the tricks resorted to by pretenders, to secure the confidence of a too credulous world.

It occurs to us, that the editors of our public newspapers, who certainly occupy highly responsible positions, are entirely too precipitate in endorsing statements, and recommending systems and medicines, of which they can know but little, and if acted on, might prove disastrous to the community. If we are not deceived, the homœopathic success in the Auburn Prison was favorably commented on in this city, and the opinion advanced that the same system was worthy of trial elsewhere. We think a little reformation in relation to these matters would be advantageous to all parties.

MESMERISM.—Our present number contains a well written article, by Dr. R. Thompson, on Mesmerism, which was read before the Medical Convention of Ohio, in May, 1843. Although we cannot agree with Dr. T. in his conclusions, yet we can assure our readers that the author's intentions are good, and his integrity above suspicion: therefore, whatever errors the reader may suppose the article to contain, should be attributed to the writer being misled himself, and not a desire to deceive others. The paper is well worth perusal, as it exhibits what is believed on that subject by intelligent men, and furnishes some indications as to the best mode for its investigation.

We have not had sufficient evidence to convince us of the truth of mesmerism, to the extraordinary extent claimed by its advocates; indeed, there seems to be a disagreement among themselves, as to the extent of its validity, and applicability to the cure of disease. We are not disposed, however, to denounce our respectable and intelligent medical brethren for their faith in this mystery; indeed we believe that it rests with the profession to investigate its claims, and expose its errors. So long as its claims are entrusted to those knowing but little of animal life, the most wild and fanciful conclusions will be drawn.

By the way, what has become of the "*Phreno-Magnetic Society*," of this city? If we remember right, a *select* society was formed about a year ago, consisting of *fifty scientific* gentlemen of the city, with the avowed object of investigating the claims of animal magnetism, and establishing its practical relations. And further, if we remember right, the extraction of a tooth was said to have been accomplished in the magnetic state, *without pain*; and some of the members were actively engaged in attempting to cure diseases by mesmeric manipulations. Now we would ask in all sincerity, what has become of this society, and what have been the results of its *systematic* course of investigations? If fifty gentlemen of high scientific attainments, and among them several physicians, have been unable, after a year's investigation, to develop any thing useful in mesmerism, we should really doubt its utility, even admitting its reality. That these gentlemen have failed, we infer from the fact, that the public have not been apprised of any useful application of Mesmerism, and we cannot for a moment believe, that they would permit it to remain secret, had any such results followed.

MEDICAL BOOKS.—No one can doubt that medical science is now, and for some time has been, actively progressing. These improvements and are recorded in new books, and in periodicals, both of which should be more sought after by the profession than they seem to be; and we would respectfully urge the necessity of a more frequent resort to the book-stores by medical men. To aid our readers in forming an opinion of such new publications as may be placed in our hands, we regularly notice all works furnished us by the publishers. That readers do, to a considerable extent, rely on medical journals to inform them of new works is undoubtedly true; hence, it becomes the interest of publishers to supply the different periodicals with copies of their works for notice.

We wish to call the attention of the profession to those enterprising booksellers of this city, Messrs. Desilver & Burr, 112 Main st. Long has this city been in want of standard medical works, and a regular supply of new publications; indeed, there was no assortment of medical books in the city until the house referred to was established. We consider it the duty and interest of the profession to patronize this house, because, if not sustained, they cannot furnish us with the books we need, and they have a right to expect that their enterprize will be met with a corresponding liberality on the part of the profession. They will sell books as low as any other house, and furnish to order any works that may not be on hand. We hope that those visiting the city to purchase books will give them a call.

QUAIN'S ANATOMY, with notes by Prof. Pancoast, containing nearly five hundred pages of letter-press, and two hundred engravings, royal quarto, at the low price of fifteen dollars, is for sale by Desilver & Burr. It is a work of great value; and at its present low price cannot fail to command the attention of the profession.

ERROR IN DIAGNOSIS.—In a letter to the Editor, Dr. Sprague, of Michigan, alludes to the following occurrence: A respectable young lady was suspected of being pregnant, her abdomen having considerably enlarged. She was treated by the parents with unnatural cruelty, which induced her to request the opinion of a physician. This

was obtained, and unfortunately sustained the views of the parents; and, notwithstanding the solemn protestations of the patient, she was declared pregnant. Disease and ill treatment soon terminated her life; and, to the chagrin of all parties, a post-mortem examination revealed *numerous large tumors* in the abdomen, but no fœtus. We refer to the case, that it may be an admonition to others to be less hasty, or more accurate in diagnosis.

LAPORTE UNIVERSITY.—We have received the second annual Circular of the Medical Department of this institution, by which we learn that the number of pupils for the last session was twenty-seven, of whom two received the degree of Doctor of Medicine. The school is situated in a healthy village, in the State of Indiana, twelve miles from Lake Michigan. The Professors and Chairs are as follows: *Anatomy and Surgery*, by Daniel Meeker, M. D.; *Theory and Practice*, by Gustavus A. Rose, M. D.; *Obstetrics and Diseases of Women and Children*, by Jacob P. Andrew, M. D.; *Physiology and Pathology*, by William J. Holcombe, M. D.; *Chemistry and Pharmacy*, by John B. Niles, A. M.

The school we are informed is endowed with every requisite for a full and thorough course of medical instruction; and with the abilities of the present faculty, there is no doubt but it will become a useful and creditable institution.

In the catalogue of books recommended to the students, we notice that several schools have named the older books in preference to those of more recent origin. Thus, on theory and practice, Eberle, Armstrong and McIntosh are the authors recommended. True, these are most excellent works, but the more recent systems of Stokes and Bell, or Dunglison, would certainly convey to the student a better knowledge of the present state of practical medicine, than either of the older works.

BALTIMORE COLLEGE OF DENTAL SURGERY.—The faculty of this institution are as follows: H. M. Hayden, M. D., Professor of Dental Physiology and Pathology; Chapin A. Harris, M. D., Prof. of

Practical Dentistry; Thos. E. Bond, Jr., M. D., Prof. of Special Pathology and Therapeutics; W. R. Handy, M. D., Prof. of Anatomy and Physiology.

The fourth annnual session will commence on the first Monday in November next and continue four months. This institution is under the care of most competent teachers; it is an honor to the professor, and should be resorted to by every person who wishes to acquire a thorough knowledge of Dental science.

Operation for Cataract.—In a communication signed "A Subscriber," we are informed that "Dr. Thos. H. Roe, of Newark, has lately performed this beautiful and skilful operation on James Green, of Muskingum county, a young man 28 years of age, who had been stone-blind from his birth." No unfavorable symptom, we are informed, occurred, and the operation was successful. The patient had some difficulty in exercising his new sense, so as to judge correctly of distance and forms, and colors; though he acquired a knowledge of the latter sooner than of the former.

Fall Lectures.—The second part of the summer course of Lectures, will be resumed in this city, on the first Monday of September next. In consequence of the death of Dr. Eberle, Professor Harrison will lecture on the Theory and Practice of Medicine. Clinical Lectures will be delivered twice a week at the Commercial Hospital, by the Attending Physician and Surgeon. The course will be full, and offers an excellent opportunity for students to review their studies before the beginning of the winter session. We believe it is generally admitted that a winter session of four months, is too short a period to accomplish all that is expected of the medical students: it therefore becomes important that he should embrace every opportunity to extend his course of studies. The great advantage of lectures over *reading*, is, that the subject is presented in a condensed form by the lecturer, being divested of its useless appendages, and comprising, in many instances, selections from a variety of sources, while in reading, the student would be confined to a single book.

Professors Cobb and Gross, of the Louisville Medical Institute, will commence their fall course of Lectures on the fifteenth of September,

and continue until the last of October. The Lectures embrace Visceral and Surgical Anatomy, and Operative Surgery. Students who expect to attend the winter course at Louisville, would do well to avail themselves of the fall lectures.

Corrections.—In Prof. Wright's article on Uterine affections, published in our third number, on page 120, second paragraph, for "same means", read *sacral nerves*.

In Dr. Crawford's article on milk-sickness in our last number, an error occurred in relation to the mode of administering tartar emetic. The Dr. informs us that he gave one grain of tartar emetic, in solution, every *ten minutes* until the bowels were freely opened, which seldom took place within two hours, or required more than three to accomplish that desirable result.

The error in this article was committed by the transcriber of Dr. C's notes, and the manuscript was not seen by the author before publication.

Necrology.—Died, at Peru, Illinois, on the 27th ult. Frederick Hall, M. D., L. L. D., Professor of Chemistry and Pharmacy in Columbia College, Washington City. Prof. H. was making a tour through the Western States, but being attacked with dysentery at Peru, which it is supposed, was succeeded by some form of cerebral disease, he died within twenty-four hours after the attack.

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ORIGINAL COMMUNICATIONS.

ART I.—*On the Pathology and Treatment of Bilious Remittent Fever.* By JOHN P. HARRISON, M. D., Professor of Materia Medica and Therapeutics in the Medical College of Ohio.

The extensive prevalence of bilious remittent fever, and the annual mortality which accompanies its wide-spread presence, during our summer and autumnal months, constitute strong claims upon our attention for renewed investigations into its causes, pathology, and treatment. It is not, however, our intention, on this occasion, to discuss the etiology of this form of fever, for the space allotted to our remarks is too limited for such an excursive consideration; but we propose to restrict our reflections to two points: 1. What is the pathology of bilious remittent fever; 2. what is the treatment of the affection.

By the term, pathology, we do not mean simply the symptoms of the fever; for, although inseparable from pathology, yet they are to be considered but the exterior manifestations of an interior morbid state. Nor do we mean, by the term pathology, the appearances exhibited upon examination of the dead bodies of those dying of this affection. These two errors, that of mistaking the symptoms for the pathology, and that of substituting the morbid anatomy for the true nature of the disease, have been, perhaps, equally injurious to the cause of practical medicine. Of the sources of error, that of substituting the morbid anatomy for the pathology of the disease, is the most alluring to the strenuous cultivator of medical science: for there

is something so specious, so imposing, in the array of structural lesions, detected by the knife, as to awaken a strong belief that the true nature and seat of fever have been revealed, and that all other sources of information on this point are inferior, and but subsidiary to this main, central, demonstrable one.

In the prosecution of our subject, we shall divide bilious remittent fever into three stages, and respectively give the method of treatment under each head. In direct connection with each of the stages of the disease, cases illustrative of the positions taken will be detailed.

Bilious remittent fever is characterized by its endemic, epidemic, non-contagious occurrence. It arises from limited sources of atmospheric vitiation, and never occurs as an epidemic in cold seasons of the year. There are no well substantiated instances of contagiousness attached to the complaint; but the confined and polluted air of a sick chamber, breathed even for a short time by those who are predisposed to an attack of the disease by the agency of malaria, may act as an exciting cause, and bring on the fever.

Bilious fever invariably involves a very serious disturbance of the nervous system. The cerebro-spinal and ganglionic systems suffer severely in attacks of this disease. The brain is always deranged in its sensorial function. This is evinced by hebetude and inaptitude of mind; confusion and incoherence of ideas; vertigo, with impairment of perceptive power; seeing, hearing, and feeling are perverted, and the capacity of locomotion diminished greatly, if not altogether suspended. Various lesions of sensation are present; such as pain of the head, back and limbs, with a sense of chilliness, or heat, often rapidly alternating on the surface of the body.

In bilious fever, the secretions are always in a state of derangement. The tongue, from morbid secretion, becomes coated with a white or yellowish fur; the fauces are deficient in moisture; the salivary glands do not pour out their accustomed quantity of saliva; the mucous surface of the intestinal tube is less abundantly furnished with its lubricating fluid; the liver is suspended in its secretory function, or a great impairment of hepatic secretion always accompanies the fever; the kidneys secrete less urine; and the cutaneous surface becomes dry and hot, or is depressed in temperature, and covered with a morbid moisture. Strange misconceptions have obtained in refe-

rence to one very important matter connected with the pathology of bilious remittent fever. Allusion is made to the kind and degree of hepatic disorder, which is always present in an attack of this fever. We have heard enlightened practitioners, who had seen very little of the disease, contend that the liver poured forth an excessive quantity of vitiated bile, in bilious fever. Others have asserted that there is always a lesion of structure in the substance of this great abdomina-viscus, in the fever; whilst, on the other hand, some have said that membranous inflammation was the essential lesion, the peritoneal investment of the liver being exclusively inflamed.

In our conception of what really occurs in the biliary apparatus, during this fever, in a vast majority of cases, there is no inflammatory action going on in the liver, neither in its parenchyma nor serous coat: and, as to the biliary secretion, there is a diminshed, instead of a more copious efflux of bile. The gastric juice is not elaborated by the mucous follicles of the stomach; the appetite for food is null, and the digestive process completely arrested; the urine is sparse and high colored. An entire suspension of urinary secretion is a most unfavorable augury—a patient rarely recovering where this symptom is observed, unless where it springs from a large dose of opium. The strangury, often witnessed after the application of a large blister, in bilious fever, is not indicative of suspended urinary secretion, but results from an interruption of the extruding power of the bladder, from irritation about its neck. The peristaltic movement of the bowels is, in a majority of attacks of bilious fever, diminished to such an extent as to occasion constipation. Sometimes, however, diarrhœa may indicate the supervention of irritation in the mucous lining of the intestinal tract.

Frequently, in severe seizures of the complaint, there is vomiting of the most distressing and obstinate character. This symptom may come on very early in the disease, and may persist for days with little or no abatement. It is a symptom of bilious fever, not to be trifled with; for it may import the most imminent danger. It may, however, not be a very serious phenomenon, and be easily controlled.

There always coexists with the lesions of innervation, and of secretion, adverted to above, a disturbance of the circulation, in this affection. The action of the heart is accelerated; the volume, force and frequency of the pulse is generally augmented, and irregular

distributions of blood take place. Determinations, with accumulations of blood, arise. The brain, alimentary canal, liver, spleen, and sometimes the lungs, become congested, not from a mere passive, or mechanical accumulation of blood in them, but from active determination, resulting in local plethora or giving rise to inflammation in the respective tissues of those organs.

There is always, in bilious, remittent fever, a disordered action of the heart; but the pulse is occasionally oppressed, its rhythm disturbed, and great apparent debility present. The cases, in which these phenomena occur, are known by the term congestive; but the term congestion is often a sad misnomer, in its commonly understood signification, when applied to recent seizures of bilious fever: for there may exist, and often the pathological entity of the congestive case is thus characterized, a state of suffocated excitement, which requires depletory and revulsive measures, to release the oppressed energies of life from their apparent condition of debility. Closely allied to lesions of the circulation, structural alterations are to be apprehended. These organic lesions may manifest themselves early in the disease, or they may arise in the course of the attack after the intervention of several days, or weeks, from the accession of the febrile orgasm. Inflammation is not to be justly considered as the primal link in the consecutive series of phenomena developed in bilious fever. That patients are in the generality of instances destroyed by inflammation in fever, does not warrant the inference, that there is no other quarter whence danger may arise in febrile attacks. The sequence must not be put in place of the ancedence; the effect should not be transferred to the causation. The brain may bear the onus of inflammatory action, and the patient may die of effusion of serum in the ventricles, or on the hemispheres;—or lymph may be poured out; or the intensity of the vascular turgescence may destroy life by producing a state of apoplexy, or of convulsions.

The stomach may become inflamed, or the duodenum, or ileum, and the patient may perish from the severity of the inflammation, before any degree of follicular ulceration may arise.

The liver is very seldom the seat of inflammation in our ordinary bilious fever. The functional action is always perverted, or suspended, but it seeems to escape the ravages of inflammation which so often destroys the structural integrity of the mucous tissue of the digestive tube.

Inflammation, issuing in ulceration, is a frequent sequel in protracted attacks of this form of febrile disease. This ulceration is commonly found in the glands of Peyer in the lower end of the ileum. Ulcerations in the colon and rectum, are often seen in persons dying from bilious fever. Where jaundice complicates the fever, we have found, in cases proving fatal, the mucous coat of the duodenum inflamed.

With these general reflections on the symptoms and pathology of bilious remittent fever, we proceed to the consideration of the three distinct stages of the malady.

The first stage we designate as the simple febrile; the second as the local inflammatory; and the third, as the stage of structural changes. These different stages of the disease are obscurely marked in some cases by correspondent symptoms, denotive of their rise, progress, and termination. Still there are apperciable signs which may enable us to discriminate these three stages, and in the fair interpretation of which an important diagnosis may be established.

I. *The First Stage of Bilious Fever.*—The exact manner in which malaria impresses the system it is difficult to determine. But there are several facts bearing on this point, which for a just solution of this mystery, should be kept in view. First, the foul exhalations from marsh, or paludal soil, are received into the lungs, and through that medium impart a predisposition to the body. The heart, the bloodvessels, the digestive organs, and the secreting and assimilating functions, being closely united by nervous connections with the lungs, receive the impression of the febrific agent, and experience the effects which flow from that influence. This state of predisposition, called by modern authors the incubation of the disease, may persist some time, without any very noticeable departure from health. But upon the application of some exciting cause, such as exposure to the sun, or to night air, or undue indulgence of the appetite, or from over exertion, either mental or corporeal, the fever is ushered in by its usual symptoms. The cause generating bilious fever may remain, apparently inoperative in the constitution for an indefinite period until awakened into activity by the disturbing operation of some exciting cause, which suddenly converts the formative or precursory stage, into an actual invasion. This period of incubation may persist some time, and gradually abate, without the development of positive febrile phenomena, provided the system be sedulously guarded against

exposure to the exciting causes. The original predisposing cause, malaria, may, however, especially when inhaled in a concentrated state, act with such force on the system as at once to rouse the febrile phenomena. But in the worse visitations of epidemic bilious fever hundreds of persons, living in the miasmatic region of country, escape an attack of the malady. If the poison, generating the fever, were received into the blood, and the circulating fluid, thus rendered unfit for the purposes of nutrition and animation, such immunities from an attack of fever could not be had. Every one whose blood was thus contaminated would be liable to a seizure of the fever.

The miasmata do not act either as an exciting or depressing influence, but exert a peculiar perverting agency on the system. Mere excess of excitation, or the induction of a sedative impression, could not create the serious disturbances in the system, which are seen to arise from the application of such a cause.

All the certain knowledge we possess on this obscure question authorizes us to refer the period of incubation of bilious fever to a peculiar condition of the nervous function. Through that pervading and controlling function the various disordered states occurring in the disease are produced in the secreting and exciting viscera and tissues, in the heart and bloodvessels, and in the structural arrangements of important organs.

The deranged sensations, and other proofs of a lesion of innervation, which so invariably show themselves in the very onset of this fever, do not attach to any one organ. The head is the part of the body that more invariably is affected with pain than any other portion, and next to the head, the lumbar region of the back is most frequently the seat of suffering. The limbs are often severely painful; the pains sometimes extending down the legs, and arms, and are particularly severe in the calves of the legs.

There exists a highly sensitive state of the skin in many cases, and this sensitiveness is especially felt upon an application of the fingers of the physician to the spine, and epigastric region of the abdomen. The attack may commence in a sense of chilliness, but frequently the first symptom is pain in the head, back and limbs.

The tongue is coated and there is a depraved taste in the mouth of a slightly bitter character, and the natural perception of the palate is blunted, so that the patient complains that nothing tastes right. Appetite is gone, thirst is great, and the bowels bound. The pulse

is quick and frequent, often with augmented force; the carotids beat with increased vehemence, and in thin subjects the abdominal aorta is felt, on application of the hand between the epigastric and umbilical regions, pulsating violently.

All these symptoms, and others which are witnessed in attacks of bilious remittent fever, point to serious lesions in the nervous and vascular systems, and the various emunctories of the body. Independent of actual inflammation, from the mere stress and violence of the shock inflicted on the powers of life, the disease may rapidly prove fatal.

Children under ten years of age sometimes die of convulsions, brought on by the severity of the febrile excitement. In the desolating epidemic bilious fever, which occurred in Louisville, Ky., and its environs, in the summer and autumn of 1822, many children from one to ten years of age perished in the first stage of the disease. The fatal form it assumed was general convulsions, coming on very soon after the invasion of the febrile symptoms; patients dying within from four to forty-eight hours after the onset of the spasms. Pregnant women are liable to abort, or have premature parturition, in the first stage of bilious fever. Whenever abortion, or premature delivery, results from the intensity of the febrile excitement, determining excessive momentum of blood upon the uterine vessels, or from the severity of disturbance given by the fever to the contractile energy of that organ through its nervous endowment, strong grounds for fear as to the issue are afforded,

The following cases, selected from others of a similar character, are given to illustrate the position, that bilious remittent fever may prove fatal without leaving any detectable organic lesion behind.

Roland, who was occupied as a common hand on board a steamboat, running between Louisville and New Orleans, was admitted into the Hospital on May 3d, 1827. He has had fever several days on board of the boat, which is just from Orleans, where he contracted the disease. The symptoms present are, full and strong pulse; tongue furred; heat of the skin but slightly above the natural temperature; some pain in the head and back; confusion of thought; bowels disordered by frequent discharges. A few hours after his entrance into the house he died, after taking a dose of calomel, which did not operate. Upon the most careful autopsy, no structural lesions, or traces of inflammation could be detected, either in the head, thorax, or abdomen.

2. Thomas J. Brown, aged twenty-two years, just from the South, having come up the Ohio as a steam-boat hand, was admitted into the Louisville Hospital on the 18th of April, 1831. He has had intermittent fever nine weeks, for which he has taken one dose of salts, and sulphate of quinine in an irregular manner, without arresting the ague. Persistent fever has supplanted the paroxysmal affection, as there has been no ague within the last two days. The symptoms are, pain in the head, a quick, open and compressible pulse, hurried respiration, hot skin, no pain or pressure over the abdomen, and great prostration of strength. On the first day of his entrance, he took twenty grains of calomel, which procured several dark colored alvine discharges. The second day of his admission, found him worse, and stimulants were resorted to, to sustain the faltering powers of the system. He continued to sink, and died on the seventh day. *Sectio Cadaveris.*—No trace of structural alteration could be discovered in the head; there was a slightly tuberculated condition of both the right and left lungs, which were adherent to the ribs to a partial extent, on both sides of the thorax, by slight adhesions, of not, apparently, a very recent formation.

Abdomen.—The mucous tissue of the entire alimentary tube was found in a healthy condition. No vestiges of inflammation, or of ulceration could be observed, in any portion of the intestines. The spleen was larger than usual, and indurated. The liver was healthy in size and appearance.

3. Jacob L. Brown was admitted into the Louisville Hospital July 2d, 1831, with bilious fever of two weeks standing. He was taken in New-Orleans, and was sick during the whole of the passage up the Mississippi and Ohio.

Symptoms on admission.—Skin hot and dry; pulse 90 and full; great heat and tenderness in the epigastrium—has diarrhœa; incessant and insatiable thirst; tongue coated with a thick white fur; urine high colored and sparing in quantity.

Treatment.—Bled ℥xvj.; took xv grains calomel. In the night he was cupped over the abdomen to the extent of a few ounces of blood. On the second day of admission, he took one grain of calomel, one fourth of tartar emetic, and five grains of the nitrate of potash, every three hours. Under this plan he improved. On the 3d day he is

not so well; pulse 110 strokes a minute; bowels very loose; stools thin and frequent. A blister was applied to the abdomen. Fourth day, he was worse—delirium, tongue red, subsultus tendinum—shrinks and complains of pain when the epigastrium is pressed upon by the hand. Four ounces of blood were taken by cups from the temples: spts. mindererus substituted for the calomel, tart. emetic, and sal. nitre. Fifth day, tongue dry, sordes about the teeth, pulse small and frequent; alvine discharges thin, frequent, and nearly colorless. Wine whey and vol. alkali were administered. Sixth day, comatose, lies on his back, with legs drawn up, eyes half closed and rolled up, so as to show the white, or sclerotic coat. Blisters were applied to the ancles and wrists, and stimulants continued. On the seventh day he died.

Body inspected six hours after death.—Brain rather vascular; a small quantity of water in the ventricles. Thorax—contents healthy; abdomen—stomach, intestines, liver, spleen, and pancreas, all perfectly sound, and of natural size. Upon a diligent inspection, no trace of disease could be detected in any of them.

The above three post mortem examinations prove, that the morbid anatomy of bilious remittent fever does not conclusively point to its true pathology. The symptoms, during the life of the patient, must, in connection with the effects of our remedies, and the necroscopic researches, guide the mind of the practitioner in his practical conclusions concerning the nature and seat of the affection.

The indications of treatment, which we conceive are obviously deducible from the true pathology of the first stage of bilious fever, are these: first, to abate vascular action; second, to restore the secretions. The fulfilment of these two therapeutic indications, is to be our governing purpose in the management of the first stage of this malady.

Now, although we regard the nervous derangement as the first lesion, noticeable in attacks of this fever, yet, as this disordered condition of innervation may remain latent without any irregular vascular excitement, or serious interruption of the secretions and excretions, the physician is not called upon to prescribe for it. But, to prevent this period of incubation ripening into an attack of fever, we know no better method of prophylactic resort, than, with the careful avoidance of the exciting causes, to preserve a proper, healthy action of the emunc-

tories. With this view, the bowels should be kept open, the biliary secretion maintained by mild mercurial aperients, the urinary discharge increased by drinking a very dilute solution of the super tart. potassæ, and, if the skin is harsh and hot, by applying water to the general surface.

In this period of incubation, a mild emetic will often break up the commenced train of morbid movements, and prevent an onset of the fever. A strict regulation of the diet is of indispensable importance in preventing the development of that series of abnormal actions, constituting fever.

If the fever is established, and there are no circumstances to contraindicate its exhibition, an emetic of ipecacuanha and tart. antimony, constitutes our best expedient to lower vascular excitement, and at the same time to excite the secretions of the skin, liver and kidneys. Fifteen or twenty grains of ipecacuanha and two of tart. emetic, are to be dissolved in ten spoonfuls of warm water, of which one spoonful is to be given every ten minutes till full emesis is induced. After the vomiting is over, some corn meal gruel may be directed, to turn the emetic down, and secure one or more alvine discharges.

If vascular action is very high, the lancet should be employed before the emetic is administered. Apart from the excellent results, secured by the direct impression created on the system by the abstraction of blood from the arm, several very important collateral advantages flow from the judicious employment of the lancet in bilious fever. As a pioneer remedy, one to open the way for the action of other remedial measures, there is no resource in therapeutics at all comparable to bloodletting. The effect of the vascular excitement is direct and immediate. The contractions of the heart are weakened, and the quantity of blood occupying the vessels, is diminished. But the influence thus excited is less remarkable and curative than the impression communicated to the nervous system, and through that upon the capillary system. The blood very soon participates in the changes wrought by the lancet on the nervous and vascular systems. Its fibrine and red globules are relatively decreased in a very speedy manner, and thus it is rendered less stimulating to the organs.

It frequently happens that purgatives will not act on the intestinal tube, until, by a loss of blood, a susceptibility is awakened to their presence and power.

The degree of tolerance to the loss of blood is not so great in any form of idiopathic, as exists in symptomatic fever. An adult patient, during high vascular action, however, in bilious fever, will bear the loss of from sixteen to twenty ounces of blood, drawn in a full stream, whilst in a recumbent position. A decided impression should be made, especially in the first bleeding, upon the pulse, and upon the pain of the head, back and limbs. The necessity for the repetition must be estimated by the intensity of the pain in the head, the heat of the surface, flushed countenance, hardness and force of the pulse, and the effect of a previous detraction of blood.

After vascular depletion, our main dependence, in the first stage of bilious fever, should be placed in purgatives, antimonials, and affusions of cold or tepid water.

Among our cathartics, calomel stands conspicuous, as the most effective pro-bilious agent. The union of tart. emetic with calomel, in bilious fever, is a favorite and successful means of combatting this fever, with us. Ten, fifteen, or twenty grains of calomel, with one grain of the tart. antimony, furnishes a very useful remedy. Or, the calomel may be combined with jalap, or given alone, and followed up in a few hours with castor-oil, or a strong infusion of senna and salts. The purgative practice, we are aware, has been much depreciated within a few years, by many who draw no lines of distinction between the different stages of bilious fever, and the appropriate method of treatment, appertaining to each of these stages. Confident, we are, that in the first stage of this fever, they are not only appropriate, but in the highest degree conducive to the safe management of the disease. Besides, the removal of the irritating contents of the intestinal tube, purgatives act by creating a revulsive impression, remedial of the cerebral determination, and, by eliciting a more abundant exhalation from the extensive area of the digestive mucous tissue, and of secretion from the hepatic apparatus, they relieve the chylopoietic viscera from that accumulation which is apt to oppress them.

In pregnant females, the lancet must be chiefly made to subserve the ends of depletion. Emetics and purgatives can not be relied upon in the treatment of a pregnant female, affected with a high grade of bilious fever—though ipecacuanha may be safely administered in such a case, both as an emetic, and as a nauseant; and calomel, in moderate doses, is both a safe, and often indispensible remedy.

To restore the secretions, especially of the skin and kidneys, the neutral mixture, or spirits of mindererus, with the fourth or fifth of a grain of tart. antimony, may be early employed: or a combination of one or two grains of calomel, one sixth of tart. emetic, and eight grains of nitrate of potash may be given every four hours. We are not in favor of inducing the mercurial action, in the first stage of bilious fever. Indeed, the attempt to create mercurialization of the system, during the height of vascular action, is often fraught with rueful consequences. The two actions, the febrile and mercurial, are incompatible; and, as long as there is present, strong vascular excitement, no attempt should be made to bring on the mercurial influence. The continuous, steady use of tart. emetic, in minute doses, is a practice justified by the most ample experience of its success in fever. The nausea, which may, or may not, accompany its administration, we look upon, as only incidental to its wide scope of curative agency. The action of this great remedy, on the capillary system, is unique, besides the controlling power, which it exerts on the general circulation.

The application of cold water to the surface of the body, where a high temperature prevails, has been, of late years, too much neglected. The injections of cold water, into the rectum, will arouse the bowels from a torpid state, after warm, stimulating enemata have failed.

Cold drinks may be freely allowed, even during the administration of calomel, in the first stage of bilious fever. Should obstinate vomiting occur, either as an original symptom of the affection, or as the result of the remedies introduced into the stomach, we should be very wary how we apply a blister over the stomach, unless the febrile orgasm has been subdued by bleeding, and other depletory measures.

The application of cold to the epigastrium, and the the use of effervescent draught will sometimes afford relief, and arrest the vomiting. Where obstinate constipation accompanies the gastric irritability, enemata are to be employed. An enema, composed of a table spoonful of the spirits of turpentine, beat up with the yolk of several eggs, is a very efficient means of rousing the peristaltic movement of the bowels, and thus checking vomiting. The introduction of a gum elastic tube, or a male catheter, up the rectum, beyond the upper annulus, and the injection of the turpentine enema through it, scarcely ever fail in exciting the bowels to the expulsion of their contents.

That, by the assiduous appliance of the above suggested modes of medication, we can always arrest bilious fever, it would be unwise to assert: but, that we may do much by these measures to abridge the duration of the attack, and to lessen its liability to a fatal issue, ample experience in the treatment of this disease authorizes us most confidently to aver.

This first stage, we have said, is characterized by lesions of innervation, secretion, and of the circulation. There are no proofs afforded, either by the ratio symptomatum, by the effects of remedies, or by the post-mortem appearances, to establish the theory that inflammation is the punctum saliens, the starting point, of bilious fever. That inflammation is very apt to occur, in the progress of the affection, we feel assured is a truth, so universally concurred in by the profession, that it needs no confirmation at our hands. But, to lay down the broad and sweeping postulate, that, in all cases of bilious fever, there is a veritable phlogosis of the brain, or of the intestinal mucous membrane, or of the spinal marrow, and that this local inflammation is the substantive disease, the other phenomena being but adjuncts, or dependent results of this one morbid state of any one organ, is what we would most strenuously deny. And our cases of post-mortem examination directly disprove this theory of the local pathology of this fever.

II. *The second stage of the malady is associated with inflammation.* The brain is frequently the seat of this accompaniment. The mucous coat of the stomach, or of the duodenum, but more frequently of the ileum, may be the part implicated in the inflammation. The mucous tissue of the lungs, or the pulmonary parenchyma, may be invaded by vascular irritation, which shall terminate in an incurable lesion of structure.

During the prevalence of the destructive epidemic bilious fever, which visited Louisville and its vicinity in the summer and autumn of 1822, patients were in some instances rapidly cut off by gastritis and duodenitis. The spleen, in such cases, was found distended with blood; the distention was in proportion to the duration of the case, or to the marks of inflammation in the stomach.

Additional to the symptoms which are present in the first stage of this disease, there are several phenomena of prominent bearing in the inflammatory stage, worth a distinct consideration in our attempt to form

a just estimate of the pathology and treatment. The prominent particularities attached to the cases in which inflammation has existed from the beginning of the attack, or in which it has arisen in the procession of the febrile phenomena, are the kind and degree of pain, the vomiting and constipation, and the delirium, or coma, which may be present.

The essential feature of this second stage is the existence of inflammation. This may take place very early in the disease, but in a majority of cases it arises several days after the fever has been distinctly declared.

The pain experienced by the patient, where inflammation exists, persists during the diurnal remissions of the fever. This pain, if in the head, is of a darting, deep-seated character, and is accompanied by intolerance of light and contracted pupils. It is aggravated when the patient is directed to roll his head. Pain in the epigastrium, or lower down in the abdomen, aggravated by pressure, is generally regarded as a pathognomic symptom of inflammation in the alimentary tube. But a highly sensitive state of the integuments may be mistaken, upon a hasty and rough mode of tactual examination, for a proof of visceral inflammation. The pressure made by the fingers of the physician should be gradual, and with the precaution not to thrust the nails upon the skin. The production or increase of pain upon pressure, is, however, no indubitable evidence that there is inflammation of the bowels. Where inflammation exists, there may be little or no pain, and where it is absent, mere intestinal irritation may give rise to pain. Still this means of diagnosis should not be neglected, neither should its importance be exaggerated. The excessive vomiting, especially if connected with indomitable constipation, should demand the deepest attention of the physician. Where a burning sensation in the epigastrium, with a feeling of weight about the chest, and deep sighing inspiration, are exhibited, there is strong reason to believe that gastritis is present. The tongue is no certain index to this condition of the stomach. A red tongue is perhaps more frequently connected with pulmonary inflammation than with gastritis.

Violent delirium may not denote in every instance cerebral inflammation; but where acute pain in the head, with great intolerance of light, has preceded the delirium, we should suspect arachnitis. Coma,

in the congestive form of bilious fever, indicates a high degree of vascular turgescence in the brain. This may not amount to a veritable phlogosis, but rarely continues long without the supervention of subacute inflammation. The symptoms of congestive fever may depend upon a very depressed condition of the nervous energy, or upon a most intense degree of inflammation. We recollect the case of a poor woman, who died in, 1821 of a gastritis complicating bilious fever, who had been treated by a very respectable practitioner for congestion of the portal circle, because the skin was cold and clammy, and the pulse small.

The following post mortem examinations are adduced to show the inflammatory complications which accompany the second stage of bilious fever.

4. Charles Russel, aged thirty-two years, admitted into the Commercial Hospital of Cincinnati, Sept. 20, 1841—has been sick three days on board a steam-boat, of which he was a common hand. Pulse full and active; skin hot and dry; bowels open; tongue coated No local affection could be detected. He was put upon spirits of mindererus and tartrate antimony, so as to produce diaphoresis. On the second day there was a slight improvement of the symptoms. Four grains of calomel, and two of ipecacuanha, were given, which produced vomiting and durging. On the third day, a slight improvement. The tongue is moist and clean, bowels open, pulse softer, but the skin is dry and hot. The diaphoretic mixture is continued. On the fourth day, he is so much better as to converse with his fellow patients in the ward, and dictate a letter to his wife, who lives out of town. Soon after this effort, he complained of a most excruciating pain on the middle portion of the right parietal bone. For half an hour his cries filled the ward; then apoplectic stupor came on, and in two hours he was dead. Venesection and cupping, with cold applications to the head, were used, but with no arrest of the fatal issue.

Sectio Cadaveris. Sixteen hours after death the post-mortem took place. *Head.* Four ounces of coagulated blood were found in a large rupture of the cerebrum, occupying the right hemisphere, above the middle and posterior lobes, over the corpora striata and optic bodies. No appearance of arachnitis. *Chest.* Lungs sound—slight hpyertrophy of the left ventricle of the heart.

Abdomen. Apparent inflammatory turgescence of the mucous coat of the pylorus. There was a blush of redness, more than natural along the jejunum and ileum. Upon reflection, I am not satisfied with the inference made at the time, that these appearances in the stomach and bowels, were indicative of inflammation having existed. The sanguineous effusion in the brain, proceeded very evidently from a raptus hemorrhagicum, and not from the rupture of a vessel; for no such rupture could be detected.

5. W. Patts, aged twenty-six years, a laborer, was admitted into, the Cincinnati Hospital, May 19th, 1842, with fever—has been ill about eleven days,—first attacked with intermittent, for which no remedies were employed. Pulse is frequent, skin hot, pains in the knees, ankles and back; tongue dry, and bowels frequently moved. He took three grains of Dover's powder, and two of calomel every three hours. On the second day there is some improvement; bowels checked, tongue dry, pulse full, but compressible. The medicine was continued. In the afternoon, epistaxis came on, which was not checked till a considerable quantity of blood was lost. On the second day, the patient passed blood freely from the bowels. There is considerable meteorism, or flatulent distension of the bowelss. On the third morning, at 1 o'clock, he died. The body was opened at 10 o'clock A. M of the same day. Before proceeding to the dissection. it was discovered that the skin of the front part of thorax, the upper parts of the arms, and the neck, presented about twenty petechial spots. *Thorax.* On opening the pericardium, a pint of serum flowed out. There was slight thickening of the mitral valves; the heart, otherwise, was in a normal state. Lungs hepatized slightly, and much engorged with blood. Abdomen and liver darker than natural, and enlarged to a slight extent. Spleen enlarged, but to no great degree; the gall bladder distended with bile, and a large lymphatic gland adherent to the cystic duct. The mucous coat of the stomach, at the great curvature, slightly thickened; with patches of extravasated blood. The mucous lining of the superior part of the rectum thickened and of a deep red color. Both kidneys larger than ordinary.

6. David Clark, aged 40 years, by trade a tobacconist, entered the Cincinnati Hospital the 11th day of July, 1842. He has just come from a part in Kentucky, where "milk-sickness" is prevalent—

says that he felt unwell the day before leaving the region of that strange endemic disease. His tongue is slightly furred, and tremulous when thrust out of the mouth. Denies being addicted to strong drink. Gastric irritability very great: nothing will remain on his stomach. Constipation, with intense pain, especially on pressure in the lower part of the abdomen. Pulse full and hard. He was bled from the arm to the extent of twenty ounces, took calomel in large doses, had a blister applied over the abdomen, and enemeta of cold water administered. He died on the second day of his admission into the ward.

Sectio Cadaveris. Head. Small effusion into the lateral ventricles of the brain—not more than four ounces of serum. Chest—Contents healthy. Abdomen. Cardiac portion of the stomach highly inflamed. The serous covering of the small intestines inflamed—with four inches of the ileum gangrenous.

Cases, bearing strong features of resemblance to the above, might be multiplied to a great extent; for our opportunities of making these investigations, both in private and hospital practice, in Louisville and Cincinnati, have been numerous. With a general description of the inflammatory appearances, seen on opening those who have died of bilious remittent fever, we shall proceed to the consideration of the treatment.

The encephalon, both in its substance and its investing serous tissues, will often reveal the ravages of bilious fever. The turgid and loaded state of the arachnoid, with the extravasation of lymph, or serum, between it and the pia mater, show the effects of this fever. We have very rarely seen any thing abnormal about the spinal marrow of patients dying of bilious fever. The bronchial tubes are at times the seat of dark injections, with thickening and softening. The bronchitic symptoms, and the deposition of lymph in the parenchyma of the lungs, we will advert to under the last division of the subject.

The liver is seldom affected, as far as my observations extend, in a structural way in this fever. The spleen is frequently involved in morbid changes: it may be enlarged, congested, and softened, or hardened.

The digestive mucous surface is the most frequent site of inflammatory alterations. Livid, or brownish red patches, covered with mucus, are often the only cadaveric, or hypostatic phenomena, and therefore not to be taken as evidence of a previous inflammation. But, where softening and thickening of the mucous membrane occur at these discolored spots, a more satisfactory evidence is given of inflammation. Coagulable lymph, dispersed over the mucous surface in irregular spots, affords proof of previous phlogosis, but this appearance is not very common.

The ulcerative inflammation, so often observed in this fever, especeially in the ileum, will be particularly commented upon in a subsequent part of this discussion.

The therapeutic indications, to be fulfilled in the treatment of the inflammatory stage of bilious fever, are, to lower vascular action, especially of the organs which are the seat of the inflammation; to restore the secretions; to induce the alterant, or constitutional impression of mercury; and to create counter-irritation, or revulsive action, on the surface of the body.

In addition to general bloodletting, leeches or cups must be freely employed, to abate the local inflammations which may exist. Twenty or thirty leeches, or four or five cups, may be applied to the back of the neck, and temples, where the brain is much affected, or they may be applied to the abdomen, where the symptoms point to the presence of inflammation in that cavity. The combination of tart. emetic, calomel, and nitrate of potash, already spoken of, may advantageously be persisted in, unless the gastric irritability forbids the antimony. Where incessant vomiting occurs from gastritis, there is no remedy, in our judgment, comparable to small doses of calomel, frequently repeated. One grain may be given every hour till some effect is produced. In this way we have administered sixty or eighty grains before the gastric distress was relieved, and the bowels were operated on by the medicine.

In the first stage of bilious fever, we are by no means in favor of pushing, as some term it, for a mercurial action: but, after depletory means have been unavailably employed, and there is strong grounds to believe in the supervention of inflammation, either in the brain, or in any of the thoracic or abdominal visera—whilst local sanguineous depletion and counter-irritation by blisters, are not to be overlooked—still, to save the vital organs from the disorganizing process, set up by inflammation, the great alterant of the materia medica must be called into our aid. A great deal has been plausibly urged against the use of mercury in this form of fever. The objections most pertinaciously brought forward, are, first, that it is an uncertain measure; second, that it is a dangerous remedy; and third, that there is no satisfactory proof presented in the mercurial plan of treatment of its superiority, or even equality, to other modes of conducting the cure. Let us notice each of these objectious.

That the mercurial practice, in bilious fever, is involved in a similar category with all the means employed by human skill to arrest disease, no one will hesitate to affirm; but that the judicious employment of mercury, as a constitutional remedy in bilious fever, is not entitled to the warm approval of nearly every practitioner, who has fairly tested its sanative efficacy, is what we cannot believe. The unthinking, or prejudiced tirade against the article, may pass for what it is worth among the reflecting; and the interested vaunts of boastful ignorance, in favor of an exclusive perturbating prac-

tice, in preference to the mineral remedies, is only to be despised as the feculence of a depraved mind. That the mercurial plan has been much abused by a reckless exhibition of calomel, in bilious fever, is, we feel well assured, a fact stamped in characters of shame and cruelty upon the doings of many an ignorant physician. Still there is so much certainty, and such entire safety, united with the surpassing efficacy of the mercurial practice in bilious remittent fever, that, after an experience of twenty-four years in the western country, we rely most confidently upon this great alterant, as, in many cases, the most certain, the most safe, and most rapid means of arresting the inflammatory stage of the malady. Mercury is no specific. It cannot cure all cases of this fever. It is specially adapted as a constitutional agent to this second stage. As a purgative, it may be freely given in the first stage, but no effort should be made by the practitioner to induce a mercurial impression whilst the febrile excitement is great. But, after a partial subdual of the vascular action, by the depletory measures already insisted on, and there is persistence of the fever with alarming symptoms of local inflammation, either in the head, chest, or abdomen, the most assured way of arresting disorganization of the tissues affected, is to put the system under the mercurial influence. This can be accomplished safely, and in most instances readily, by repeating the calomel every two or three hours, in two, three, or four grain doses. To persist in the purgative plan, in the second stage of the fever, we hold to be hazardous practice. Whilst the general excitement is great, and there exists no evidence of intestinal inflammation, tart. antimony may be given in small doses with the calomel, or we may substitute a grain, or half a grain, of ipecacuanha for the antimonial preparation. The pulvis antimonialis, we have frequently employed instead of the tart. emetic, and have found that it answers well as a diaphoretic, Half a grain, with the calomel, is our usual quantity in the second pathological stage of bilious fever. But, where the stomach is very irritable, we should omit the use of the ipecacuanha and antimonial preparations, and rely on the small doses of calomel. The bowels, in the mean time, may be from time to time solicited to act by enemata; but all drastic cathartics should be avoided. Mercury has obviously two modes of action, as a constitutional agent. The one is a gradual, pervading, alterant influence, which it exerts in the rectification of functional derangement, and in the subversion of low grades of inflammatory action. The other mode of constitutional influence, created by it, is that of a revolutionary, perturbating kind. This latter mode of agency is accompanied by augmented flow of saliva, swollen gums, irritable pulse, increase of heat on the surface, and urgent tendency to copious hepatic secretion. To secure this revolutionary action of mercury, is often of great consequence in the skilful management of bilious fever. When it is properly secured, it it is hardly possible for a patient to die of this fever. But the remedy

may be pushed to excess, especially in young subjects, and death may be the result of excessive mercurialism. There is a species of sore mouth, induced by mercury, which is not a legitimate ptyalism. It is the dry, ulcerative, or gangrenous stomatitis. Mercury, whenever it brings about such a condition of the mouth, acts as an injurious agent, and should be no further administered.

Blisters may be used in the second stage of the affection, but with great caution in irritable or young subjects. Where the ointment is well prepared, and the blister allowed to remain on the skin till a full rabefaction takes place, and then removed and a warm poultice applied, we have never known any bad conseqnences follow their use in delicate persons.

III. *The Third Stage of Bilious Fever* is characterized by a peculiar train of symptoms, which are usually, though not always, indicative of certain pathological changes in the interior organs. This is generally denominated the typhoid stage of bilious fever. The symptoms denotive of it are, absence of pain, except when the abdomen is pressed—then very often the patient complains; tendency to coma, or low delirium; full, open, compressible, and frequent pulse; temperature of skin little above the natural grade, or inclined to be cooler than natural; bowels generally in a very soluble state, and readily and powerfully acted on by purgatives; and there is subsultus tendinum. As the patient sinks deeper in this stage of the disease, he becomes more decidedly comatose, breathes slow, perhaps puffs out his cheeks; lies on his back, with his knees drawn up, and with his eyes half closed, so as to show the white part of the eyes. The tongue assumes a dry brown aspect; dark colored sordes gather around the teeth, and dry hard mucus accumulates in the nasal passages, which obliges the patient to breathe through the mouth.

When the interrogatory is put to the patient, "how are you," he replies, O, I feel better;" and then he relapses into the comatose state. The changes, going on in the interior organs, in this state of things, merit the profound attention and patient scrutiny of the conscientious and diligent practitioner, What are these changes? Are they invariably the same? First, we shall give as succinctly as possible, some dissections bearing on this point, and then answer the above questions.

7. Edward Stephenson, aged 21 years, a boatman, came into the Cincinnati Hospital, September 2d, 1841. He has had fever four days, for which he has been taking Brandreth's pills, which have procured frequent thin green discharges. Epigastrium painful on pressure; tongue white and slimy; pulse frequent, small and weak; pupils dilated; forehead very warm, but no pain in the head at the time of his admission, but says that he had suffered from headache from the fever before he came into the house. The first day he took two

grains of calomel, and two of ipecacuanha every two hours, and a blister was applied to the epigastrium; the second, the calomel and ipecacuanha were discontinued, on account of his increasing prostration; and he was put upon the use of the volatile alkali, with small quantities of paregoric. On the third day he was worse; coma, subsultus tendinum,—bowels loose. He continued to grow worse till the fourth day, when he died.

Sectio Cadaveris. Brain—evident arachnitis; no lymphy, or serous effusion. Thorax—contents healty. Abdomen—slight appearance of inflammation in the mucous surface of the stomach: well marked dothinenteritis, or follicular ulceration in the lower portion of the ileum, in the cœcum and colon, with ulcerative inflammation in the upper porton of the rectum.

8. Mr. B., thirty years of age, was attacked with fever in August, 1826. Complains of fixed pain of rather an obtuse character, just below the left hypochondrium. His medical attendant bled him copiously, and, entertaining the impression that the pain was of hepatic origin, he gradually mercurialized the system to a very moderate extent—his mouth being merely touched by the remedy. In a week he seemed convalescent; the appearance of the mercurialism disappeared from the mouth, and the bowels were rather bound. Upon the administration of castor oil, hypercathersis came on, and with it hemorrhage from the bowels, which destroyed his life in a few hours.

At the request of the medical gentlemen who attended the patient I opened the body; the head was not opened.

The liver was in a perfectly sound state. So also was the spleen. The large intestines were filled with blood. The intestinal tube was carefully slit open from above downward. The stomach was healthy; the small intestines were of a healthy aspect, and tinged internally with freshly secreted bile. There was a deep ulceration situated directly on the ilio-cœcal valve; this ulcer was filled with a coagulum of blood, and from it doubtless proceeded the hemorrhage which destroyed the patient's life. Irregularly distributed along the colon, twelve ulcerated patches were visible; these ulcerations were of variable depth, some penetrating into the muscular substance of the bowel. The thoracic viscera were all healthy. We might give many other cases of post mortem examinations illustrative of the above remarks, but our limited space prohibits us.

The pathological anatomy of this third stage of fever, presents various forms in different cases. The intestinal canal is the most frequent locality of the change witnessed. Ulcerated or abraded spots of various size and form, rather thinly scattered, except at the lower end of the ileum, where they are often seen in clusters—are frequently seen in clusters on the autopsy of a person dying in the typhoid stage of bilious fever. These ulcers sometimes penetrate the entire coats of the alimentary canal. The general mucous expansion may be the seat of these organic changes, but the glands of Peyer and Brun-

ner, most commonly met with in the ileum, especially in its lower two thirds, next in the cœcum, and colon, then the stomach, and and rarest in the duodenum, are most frequently affected. This ulcerative inflammation of the intestinal tube may prove fatal, in a very rapid manner, in two ways. First, by an erosion of a bloodvessel, as in one of the cases related, which produces hemorrhage, that is announced by rapid sinking of the patient, and the discharge of blood from the bowels. Second, the contents of the alimentary canal may escape through the ulcerated orifice into the peritoneal sac, and extensive inflammation be the result.

We have seen several patients opened where this latter circumstance was the cause of death. In one case a turpentine injection was administered to relieve the severe pain experienced by the patient in the right iliac region, and after death it was discovered to have passed in part through an ulcerated aperture, which existed at the head of the colon.

Organic changes sometimes take place in the brain, in the typhoid stage of this fever. In a few instances we have found lymph, and slight bloody infiltrations, on the hemispheres. Effusion of serum into the ventricles and between the serous membranes in the hemisphere is more commonly met with than lymphy or sanguineous exudation.

The mucous membrane of the bronchial tubes in very protracted cases may become the seat of a slow inflammatory process. And the parenchymatous structure of the lungs, has occasionally been rendered utterly unfit for respiration by the deposition of lymph. Well marked hepatization of the lungs at times occur in this fever. There are, we think, no just grounds to doubt but that the ulcers of the bowels, which so often arise in the progress of the typhoid stage of the bilious fever, may cicatrize during the progress of restoration. But the process of ulcerative inflammation may proceed onward towards a fatal perforation of the coats of the digestive tube after the active symptoms of fever have disappeared, or even after convalescence has commenced.

The indications of cures to be carried out in the typhoid stage of this fever are,—first, to abate the irritability of the nervous system; second, to sustain the faltering powers of life; third, to restore the broken balance of the circulation. Narcotics, diffusible stimuli, and revulsives are the means to be employed to fulfil these therapeutic indications. As the excitability of the system is greatly reduced, and latent inflammations are at work, we must not too urgently push these measures. For we may, by lighting up a sudden blaze of excitement do irreparable harm, not only by exhausting the subdued vital energy, but by exacerbating the inflammatory processes set up in the vital organs. A blister by being permitted to remain on too long may, in this irritable ataxic state of the powers of the system, provoke a degree of capillary turgescence which will terminate in sloughing of he integuments.

The bowels must be assiduously watched in this stage of bilious fever. If calomel is given at all, it should be in very minute doses—not exceeding the half or quarter of a grain. Nor should it be given alone, but in combination with opium and camphor. Our favorite prescription in this stage of the fever is two grains of Dover's powder, with four grains of the hydrarg. cum creta, to be given every two hours. Some mild nutriment should be statedly given; such as weak chicken water, or arrow root. Cold water, from its tendency to run off by the bowels, should be prohibited. Wine whey, if the strength fails rapidly, should not be withheld. During the time of giving any mercurial preparation, the carbonate of ammonia should not be exhibited. If we find it expedient to interrupt the administration of the mercurial preparation, the ordinary volatile alkali julep may be advantageously employed.

Should the alvine evacuations be frequent and watery, and the mercury, with chalk, combined with Dover's powders, do not check them, an enema, composed of sixty drops of laudanum, in four ounces of starch or mucilage, must be used.

Congestive symptoms, such as profound coma, low, struggling pulse, and cold extremities, are the offspring, in this stage of bilious fever, of cerebral disturbance, produced by some latent mischief in the brain itself, or its membranes; or these symptoms may spring from the organic lesions which are undermining the integrity of some part with which the encephalon holds intimate sympathetic relations. Among these the alimentary canal is the most conspicuous. Blisters to the scalp, after removing the hair with a razor, or to the back of the neck, and to the extremities, are eminently conducive, from their counter-irritant and exciting effects, to take off the accumulated mass of blood which oppresses the interior organs, by imparting to the circulation a centrifugal direction,

No attempt, in our judgment, should be made in the typhoid stage of this fever, to salivate a patient. The vital powers are inadequate to the maintenance of such a mode of medication: they succumb under it. But mercury is to be restricted here to the mild alterant influence which it so happily exercises. This gentle, pervading influence is promotive of the secretions, and tends in a happy manner to equalize the circulation.

The tonic and alterant action of nitric acid, especially conjoined with opium, we have found to subserve valuable ends in this typhoid stage. Our mode of using the medicine is to dissolve in an open vessel one drachm of opium in an ounce of nitric acid. Of this combination we give five drops every two or three hours. This remedy should not be administered during the use of the mercurial or vol. alkali preparations. Camphor may be advantageously combined with the hydrarg. c.creta, and Dover's powder. Should the bowels be inclined to constipation, which is a rare circumstance in this stage, they should be opened by a mild enema.

REVIEW.

ART. II.—*Remarks on a Pamphlet, entitled* "PHYSIOLOGY VINDICATED, *in a Critique on Liebig's Animal Chemistry.* By CHARLES CALDWELL, M. D. Jeffersonville, Ia., 1843." 8vo. pp. 95. By ROBERT PETER, M. D., Professor of Chemistry and Pharmacy in Transylvania University.

THE avowed design of the author of the pamphlet in hand, as given in his preface, is "*conservative* rather than *promotive*—to prevent the science of physiology, in whose behalf it was conceived and resolved on, from being *injured and degraded,* rather than actually to IMPROVE and ELEVATE it;" and the belief that its publication will *not* tend to improve and elevate knowledge in general, or any branch of science in particular, but that it will rather injure and degrade; with the conviction that it is my duty to oppose, to the extent of my abilities, all such tendencies, from whatever quarter, is the strong reason which urges me to offer the following remarks to the medical public.

In undertaking, in the present instance, the disagreeable task of exposing error, many motives are presented to induce me to prefer the ease of silence. The venerable age and acknowledged standing of the author; the untiring ability with which he wields his pen, and the most ready use of argument to sustain his positions, so as often to make the "worse *appear* the *better* reason;" the consideration that the work which he attacks in the present pamphlet, cannot be put down by a mere clash of logical arms, by the most ingenious mis-statement of its propositions, nor the strongest array of perverted or misquoted facts; the belief that any man of sense, or of clear unbiassed judgment, who had studied the productions of Liebig, would at once, without my assistance, perceive the injustice done to truth, logic, and that author, in the pamphlet of Professor Caldwell; and lastly, but not least, the fact, that, in the performance of the task I have assumed, I shall be obliged to convict the Professor, not only of practical adherence to the old mode of philosophizing, namely, that of the school of Aristotle, but also of wilful or ignorant misconstruction of facts and

arguments; and, what is more disagreeable, I shall be forced to expose, in his production, an amount of ignorance of science in general, and even of physiology, whose cause he undertakes to *vindicate*, and of which he has been professedly a teacher for so great a number of years, as would disgrace a tyro, and must appear incredible to the common observer.

To this array of motives and arguments, tending to withhold me from the publication of these remarks, the answer is clear and satisfactory: Truth is more venerable, exalted and powerful than the Professor, and error must be continually unmasked, to prevent her from imposing herself upon those who have not the time, inclination or ability to look beneath the surface of things. The respect which I, in common with many others, entertain for the venerable Dr. Caldwell, cannot excuse me for the desertion of her standard; and the apparent want of courtesy, which may be supposed to exist in my animadversions, must be excused in the necessity of the case. Truth must be promulgated and sustained; and, if those who oppose it are offended, the fault is only with themselves.

Courtesy, indeed, is not challenged by my opponent, as the following quotations from his pamphlet will prove, which are as uncourteous in manner, towards both the author and the subject which he opposes, as dogmatical in character.

"So unlimited in its ambition and rapaciousness, has been the spirit under which the aggressions referred to have been committed, as to indicate a determination to usurp dominion over the whole philosophy of living organized matter, and consign it to the keeping and control of chemistry; and, of too many, who *pretended* to be physiologists, this determination received the approval. Such pretenders, therefore, were prepared to submit to chemical domination, and to remain content in passive obedience and all its concomitant degradation."—*Preface, p.* 5. * * *

"During this state of expectancy and inaction on my part, a new foe to the *philosophy of life* appeared in resolute and vigorous operation, in the person of Professor Liebig, much more formidable than any of his predecessors. Without any inordinate extravagance of hyperbole, well might he, in his relation to the science of living organized matter, be likened to Attila, of whom, under the soubriquet of the "*Curse of God,*" it was figuratively declared by him, that, beneath the hoofs of his war-horse, the very verdure of the earth where he trod was blighted. So certain, sudden, and numerous were his triumphs, that the "*Veni, vidi, vici*" of Cæsar seemed

fitly enough to characterize the sweep of his achievements. He had but to speak, and all were enchanted—but to proclaim his dogmas, and they were swallowed as pearl-drops from the fountain of truth."

"By those who are strangers to the circumstances of the case, it will be very naturally supposed, that this immense flood-tide of popularity and influence, accompanied by such unprecedented success in the work of proselytism, must have been owing to the uncommon merit, scientific or literary, or both, of Professor Liebig's volume on Animal Chemistry. No such thing! His success was attributable almost entirely to two other very different causes—the high reputation, whether solid or not, which he had already acquired by his work on Agriculture, and to the bold and confident tone and manner in which he made known his statements, calculations and opinions."—*Preface, p.* 7.

Commenting on some statements of Professor Liebig, he indulges in the following tirade, viz.:

"As relates to this point, we do not pronounce the Professor an *ignoramus*, because the term would be unbecoming in us. But, were we to do so, it would puzzle his ablest and most ingenious friends to falsify the charge.* And, though we do not say that a blunder on a single point, however disreputable, proves him to be a blunderer in every point, yet we do say, that the multitude of groundless assertions, which he has wantonly and dogmatically made, has, with us, greatly impaired his authority—not to say his *credibility*—as a writer."—*p.* 71.

All who are conversant with the writings, or who have listened to the prelections of Dr. Caldwell, know that one of his prominent peculiarities—and he has several—is his strong and unceasing opposition to what he terms the encroachments of chemistry into the dominions of physiology. To prevent these, he has wielded his most pointed wit, his scorching sarcasm, and the sharpest weapons of his logic. This fear has been the phantom which has haunted him for almost half a century, until his imagination has given to it a reality which terrifies him from his propriety.

While chemistry was yet young, and its disciples had accumulated but comparatively few facts to sustain it, the logic and ridicule of the Professor was doubtless successful, if not in checking its progress, at least in depriving it, in the opinion of many, of the honor which belongs to it.

*This reminds me of the Irishman's speech: "I love a liar—but you please me too well—not saying that you are one."

The phantom, held between the horns of most logical dilemmas, and pierced by the keenest ridicule, often apparently yielded to the prowess of its adversary: in other words, the "crest-fallen *chemicalist*" adopted "the expediency of retiring from the place of his own defeat, the downfall of his doctrine, and the withering of the bay-wreath his fancy had woven."†

It has been his fate, however, to meet still other Richmonds in the field—his task to slay again the slain, like that of the immortal Falstaff in his combat with the Percy. The weapons, once so keen and powerful in his hands, which, wielded by his skill and dexterity, had so often made him victor in the lists, no longer avail him against the horrid spectre of his fancy.

Some of these weapons will be recognized in the present pamphlet, by all who know him, in the account of "*chemical man-making*," the "*goose-egg* proposition," &c., &c.—stale jokes, at best—based on a monstrous misapprehension of the real end and aim of organic chemistry, which can no more check the progress of discovery, than the wavings of a fan can stay the onward rushings of a tornado!

The design of the late publications of Professor Liebig, as far at least as I am able to make it out from the words and tenor of the works themselves, is, simply to recommend the application of the new and improved processes of chemistry to the ascertainment of the *chemical relations* of vital phenomena; and, by applying the balance, *i. e*, quantitative analysis, to physiological research, to point out a new and comparatively untrodden path to the discovery of the true nature of the vital laws and processes. The formulæ, equations, and theoretical views, which form the body of his "Animal Chemistry," are to be taken only as exemplification of the method he proposes, and of some of the facts which have already been established; and are not—as the author states in his preface—"to be viewed as ascertained truths, and furnishing a complete, or the only explanation of the vital processes treated of,"—but as "yet true in this sense; that, being deduced from facts by logical induction, they must stand as long as no new facts shall be opposed to them." The critic, therefore, evidently misconstrues, or misunderstands the tenor of the publications of Professor Liebig, when he accuses him of dogmatically asserting the supremacy of chemistry over what he is pleased to term physiology, or in the slightest degree of aiming at *chemical man-making*.

†Preface, 15.

The suggestions and illustrations of Liebig have been received with almost universal approbation by all who are prepared to comprehend the subject; and by more than one distinguished philosopher it has been declared, that they are destined to "mark the commencement of a new era in Physiology." This declaration is met by Professor Caldwell in his present pamphlet, by a most unqualified negation; and by a most acute and *logical* deduction from *his own peculiar definitions and propositions*, is, to his own satisfaction, proven to be utterly unfounded. The Doctor's logic and temper, on this and other points, strongly remind us of some of the ancient worthies, whose memories are preserved to eternal fame in the history of the progress of discovery. We are told by his talented biographer,* that when Galileo published his discovery of the satellites of Jupiter, its importance was at once felt and acknowledged by both his friends and enemies; yet it really was denied by more than one whose old prejudices and envious feelings destroyed the evidence of their senses and their reason. "A protege' of Kepler's, of the name of Horky, wrote a volume against Galileo's discovery, after having declared, "*that he would never concede his four new planets to that Italian from Padua, even if he should die for it.*" This resolute Aristotelian was at no loss for arguments. He asserted that he had examined the heavens *through Galileo's own glass*, and that no such thing as a satellite existed round Jupiter." Kepler, however, forced him to see them. More obstinate was the principal professor of philosophy at Padua, who "resisted Galileo's repeated and urgent entreaties to look at the moon and planets through his telescope; and even labored to convince the grand duke that the satellites of Jupiter could not exist." But the glory of the most *logical* refutation of this discovery was reserved for Sizzi, an astronomer of Florence, who maintained that as there were only *seven* apertures in the head—*two* eyes, *two* ears, *two* nostrils, and *one* mouth—and as there were only *seven* metals, and *seven* days in the week, so there could be only *seven* planets." Forced, however, to admit the visibility of the four satellites through the telescope, he argued that, "as they were invisible to the naked eye, they can exercise no influence on the earth; and being useless, they did not exist!"

That the reader may not be forced to rely on my assertion, in regard to the character of the logic of Professor Caldwell—in his disbelief that the work of Professor Liebig can possibly "mark the commencement of a new era in physiology"—I will endeavor to give his syllogisms, as clearly

* Dr. Brewster in his Martyrs of Science.

as possible, divested however, of some of the verbosity in which they are shrouded in the pamphlet.

These, then, are his logical positions:—1. Physiology treats of the state, action, and products of living organized matter; 2. Chemistry treats exclusively of unorganized matter; 3. Therefore, Liebigs Animal Chemistry can never mark the commencement of a new era in physiology. Again: 1. To improve in physiology, new facts must be discovered, or new applications of facts, or both, in strict conformity to *vital* laws, (*i. e.* new animal functions, or a new exposition of these functions). Professor Caldwell *says* that he *will prove* that Liebig has done neither. 3. Therefore, his Animal Chemistry cannot mark the commencement of a new era in physiology.

In further "evidence of the soundness of his views," the Professor gives this additional syllogism:—1. Improvements in physiology cannot be made in the laboratory of the chemist; 2. All Professor Liebig's improvements are chemical; 3. Therefore, etc, etc, as before.

That these propositions are correctly given from the author of "Physiology Vindicated" may be seen by reference to pp. 3, 4, 5, 6, and 7 of that work.

It must be evident to every one, however, that these syllogisms require the clear definition of what constitutes a *vital law*—in order that it may be made evident when and where the daring and presumptuous chemist, shall invade the territory of physiology; or whether or not he may not stumble on a discovery in physiology. Professor Caldwell is obliged to acknowledge his utter inability to supply the test required:—

"Were any one to ask us what we mean by the phrase *vital laws* or a *vital force?* we should be unable definitely to answer the question; because of vitality—its effects alone excepted—nothing is known. We *might* reply, however, that by the expression, we intend to designate a source or power of action, differing in its principles, manner, and products, from every other power. We might also pronounce it of a higher order than any other earthly power inherent in matter."—*Phys. Vind. p.* 6.

This unfortunate deficiency destroys the whole force and power of the argument of the critic, and until it is supplied, Professor Liebig and other chemical analysts and observers may materially improve physiology—even the physiology of Dr. Caldwell—by proceeding on a principle of exclusion in their discoveries. Every chemical or physical law, force, action, or product, which they have demonstrated to exist in the organic world, will be

a difficulty removed which was in the way of a clear comprehension of *vital laws* and *forces*; and when they shall have discovered and separated *all* chemical and physical laws and action from living organized matter, all that may remain will be PURE VITALITY; and thus a most important service will have been rendered to the "*vital physiology*" of our critic.

In opposition to this view of the case, it will not do to join Professor Caldwell in his denial that *any physical* or *chemical* law or force exists, or is operative in the animal or vegetable economy—indeed the logic by which he attempts to sustain this position is as flimsy as can possibly be imagined:

* * * "It is to be remembered that both chemistry and vitality work with matter in its smallest divisions—we mean in its *atomic condition*. If therefore, they be both at work in the *entire mass* of the same organ at the same time, they must be also, at the same instant, both engaged in acting *on* and *with* the same individual particles—each in conformity to its own laws; and if these laws are *different* and even *contrary*, (as they most assuredly are), then must the strife engendered be necessarily fatal to the operations of both."—*Phys. Vind. p.* 53.

This supposed conflict, and mutual destruction of dissimilar forces, or, as he terms them, *laws*, can no more be admitted than that the vital forces of a living body necessarily destroys the attraction between the matter of that body and the mass of the earth. To say that it is mastered and controlled by vitality, is also to admit that it not only exists but is in a state of subordinate activity. Such an admission is clearly made by the Professor in the following paragraph:—

"Here it is obvious that no two causes or principles of action, different from each other, are employed at the same time, to produce any one specific effect. On the contrary, not only each cause, but each individual organ is used, as an instrument, under permanent laws, to produce the special effect for which it is designed and fitted."—*p.* 54.

One of the greatest difficulties, in the mind of our critic, in the correct application of certain facts, is his fixed and pertinacious adherence to certain figments of Aristotelian logic, which he reveres as undoubted axioms, and, by which he persists to test them—such obstacles continually retard the progress of the Baconian philosophy.—The principal of these, which he denominates a fixed law of causation, is the fact, that two different causes are never productive of the same effect.

Now we will not pretend to deny or to affirm the truth of this as an

abstract metaphysical proposition, but do affirm, that it would be as difficult to *apply it to natural phenomena*, as it would be to demonstrate to the senses a mathematical point. This law of causation may be an axiom with respect to *simple effects*, but who ever saw a simple effect, or is able to decide whether an effect witnessed, either in the living body, or in dead matter, may not be a complex one, and thus have been produced by *several causes*? Indeed, notwithstanding the Professor's challenge to his opponents to produce a single effect in nature which was the result of more than one cause, the latter half of the paragraph, last quoted from his pamphlet, (from p. 54) renders the trouble unnecessary; for in that he clearly admits the existence and action of *subordinate* causes, in what he has denominate a *special* or simple effect.

These examples of the critic's mode of argumentation in the support of his dogmata, cannot fail to excite the astonishment of all who read them—coming, as they do, from the production of a veteran and talented teacher of the institutes of medicine, in the middle of the nineteenth century. They are, however, stated with rigid justice and are but a mere specimen of the work before us; the spirit and matter of which, while they will bring no new honor to the author, will convey impressions abroad, in relation to the condition of science in the great Valley of the Mississippi, which are both humiliating and erroneous.

Not the least prominent trait, of the "critique" before us, is a wilful or ignorant misconstruction of the sense of the author criticised.

Professor Liebig, in the commencement of his Animal Chemistry, p. 1, recognises the existence of a remarkable force in a state of *rest*, in the animal ovum as well as in the vegetable seed—which force is called the *vital force*, *vis vitæ*, or *vitality*—and he attempts, subsequently, to give some of its *conditions* when in the *active state;* as, for example, its absolute dependence, in this relation, on nourishment and the constant absorption of the oxygen from the atmosphere.

Vital *activity*, as is well known, cannot exist without these two adjuvants. In the precise paragraph of Liebig—which cannot, however, be fairly estimated separate and apart from its context—"All vital activity arises from the mutual action of the oxygen of the atmosphere and the elements of the food."—*Animal Chemistry, p.* 9.

The proper construction of this passage is this;—when the vital force is brought into the state of *activity*, in animals, food and oxygen are the *primitive* or *proximate causes* of that activity. Professor Caldwell, how-

ever, determined to force the German chemist into the assertion that *chemical force* is the *cause of vitality*, changes the sentence, in the following unjustifiable manner by the use of italics.—*Phys. Vind.*—"All *vital* activity arises from the *mutual* action of the *oxygen* of the atmosphere and the *elements* of the food."

Had any member of this sentence been italicised by its author, it would undoubtedly have been the word *activity*, which is clearly the emphatical one of the isolated passage. But Dr. Caldwell is not even satisfied with this perversion, he proceeds to torture, still farther, the mangled sentence, and in order to extract from it an *inquisitorial confession*, he subjects it to yet greater strain and dislocation in the following comment.—*Phys. Vind, p.* 8: "All vital activity, (*i. e.* the power to act)," etc, etc.

Most astute and logical commentator! Could you but force the words *vital activity* in this sentence, with its context, to mean *power to act* in the most complete sense of the word, and thus exclude the vital force entirely from the action, then would you succeed in convicting the truculent chemist of high treason against *vital physiology*. But this cannot be done, for it is evident; that taken with the propositions which precede it in the work of Liebig, the word *activity* in this sentence means the *demonstrations* of power, and not the power itself—*actions* and not the *power to act*.

In the same desperate attempt to *distort*, in order to gain an occasion to combat, other sentences have been improperly italicised by the critic, with as little credit to himself as advantage to science; as, for example, the following, in which the italics are entirely the addition of Dr. Caldwell—*Phys. Vind, p.* 9:—"In the processes of nutrition and reproduction, the *ultimate causes* of the different conditions of the *vital force* are *chemical forces*."

The legitimate sense of this proposition—which, according to the previous declaration of its author, is not to be viewed in the light of an established fact, but merely as the representation of our knowledge on the subject—is, that "the *ultimate* causes of these different *conditions* of the vital force are chemical forces. In other words—chemical forces are the *last causes*, (*i. e.* those next to the effect), in the chain of causation, of the different *conditions* of the vital force. The existence of the *first* cause of vital actions, namely, the *vital force*, having already been clearly stated, in the first proposition and elsewhere, in the Animal Chemistry, nothing but a want of capacity to comprehend the connection of a series of propositions, or unpardonable inattention, can clear Professor Caldwell from the charge of having wilfully perverted the sense of the author, and, as far as he

could, changed the character of isolated sentences, in order to vilify where he is unable to refute.

Not a little ingenuity, as well as such a want of acquaintance with well ascertained physical and physiological truth as is unpardonable in a person of his elevated station, is displayed by the critic in his opposition to the views supported by Professor Liebig on the subject of the proximate causes of Animal heat. The nature of these may be understood in the following passages from the Animal Chemistry, p. 17.

"All living creatures, whose existence depends on the absorption of oxygen, possess within themselves a source of heat independent of surrounding objects.

"This truth applies to all animals, and extends, besides, to the germination of seeds—to the flowering of plants—and to the maturation of fruits."

"It is only in those parts of the body to which arterial blood, and with it the oxygen absorbed in respiration, is conveyed, that heat is produced. Hair, wool, or feathers do not possess an elevated temperature.

"The high temperature of the animal body, or, as it may be called, disengagement of heat, is uniformly and under all circumstances the result of the combination of a combustible substance with oxygen.

"In whatever way carbon may combine with oxygen, the act of combination cannot take place without the disengagement of heat. It is a matter of indifference whether the combination takes place rapidly or slowly—at a high or at a low temperature; the amount of heat liberated is a constant quantity."

In the following passages—quoted by Professor Caldwell, from the Animal Chemistry, p. 20—a mere *comparison* is made for the sake of illustration; which is altogether proper: for no one will contend that different objects, which happen to possess some common points of resemblance, are *identical* in every respect; nor can any system of correct reasoning bring us to the conclusion, drawn by the critic, from these and similar passages, that it is denied "that *vitality* has any shadow of agency in the matter." This is the quotation in question:—

"It is evident, that the supply of the heat lost by cooling is effected by the mutual action of the elements of the food and the inspired oxygen, which combine together. To make use of a familiar, but not on that account a less just illustration, the animal body acts, in this respect as a furnace, which we supply with fuel. It signifies nothing what intermediate forms food may assume—what changes it may undergo in the body, the last change is uniformly the conversion of its carbon into carbonic acid, and of

its hydrogen into water; the unassimilated nitrogen of the food, along with the unburned or unoxidized carbon, is expelled in the urine or in the solid excrements. In order to keep up in the furnace a constant temperature, we must vary the supply of fuel according to the external temperature; that is, according to the supply of oxygen.

"In the animal body the food is the fuel; with a proper supply of oxygen we obtain the heat given out during its oxydation or combustion," etc.

The theory, that animal heat is evolved by the union of the oxygen of the atmosphere with the carbon and hydrogen of the body, under the influence of vitality, and by the assistance of the organic structure, may now be called an old one; and although it cannot be considered established—nor does Liebig so assert it—yet, the difficulties to its complete demonstration and reception have been in gradual progress of removal for a number of years.

When it was first proposed, a great difficulty existed, in the unfounded belief that the oxygen of the air combined with the carbon and hydrogen of the venous blood exclusively in the lungs: according to which those organs must necessarily be much hotter than any other part of the body—a condition which was demonstrated not to exist—the theory therefore temporarily gave way, notwithstanding the ingenious attempt to overcome the objection by means of the change of *capacity for heat* which the blood was supposed to undergo in the lungs. When it was ascertained that this conbination does not take place in the lungs exclusively, but throughout the whole system—the oxygen being carried by the arterial blood from the lungs, and the carbonic acid brought back by the venous blood to the same organs to be discharged—this difficulty was in some measure removed. Objections yet arose, based on the imperfection of our real knowledge. The known influence of the nerves on the process was supposed to prove that the nervous system was the independent source of heat; but this supposition is not so rational, as that they are merely instruments for the conduction of force, without which there could not take place, in the animal body, those metamorphoses which constantly supply, in the form of separated, effete matter, the carbon and hydrogen, necessary to the production of heat by union with the oxygen conveyed into the tissues in the arterial blood.

Another difficulty is founded on the experiments of MM. Dulong and Despretz, which seem to prove that an animal produced more heat in a given time, than was equivalent to the carbonic acid given out in the same

time. A certain residuary amount of heat was therefore supposed to exist, the production of which was to be attributed to some other source.

These experiments—in which the animals were placed in close vessels, surrounded with *cold* water, and the amount of the heat they communicated to the water accurately compared with the oxygen they consumed—are now known to have been imperfect, and are consequently inconclusive. They prove nothing but that when an animal is confined under circumstances calculated to terrify it, and surrounded by a medium of a temperature much lower than its own, will for a time give out more heat than corresponds with its respiration. The body of the animal being, to some extent, a *reservoir* as well as a *source* of heat, probably lost some of its actual temperature in the process; and had MM. Dulong and Despretz applied the thermometer to the animals, before and after they were placed in the cold water box, they would have found a source of error, in the actual cooling of their bodies, which has vitiated all their results. Moreover, such experiments, to be conclusive, must be continued throughout a considerable length of time; with animals placed as nearly under normal influences as possible; and then, comparing the results of a great number of observations, a mean might be obtained which would have some bearing on the question at issue.

It will be seen that the experiments of the French philosophers were based on the practical assumption, that the temperature of the living animal body is fixed and invariable; which destroys in a great measure the utility of their labors. This assumption is as unfortunate as it is remarkable; more particularly in the case of Despretz, who at the end of the article, in his Triate' de Physique (p. 906), details the fact that Legallois had proven that the *temperature* of the animal body *lowered* when it was caused to respire rarified air, or placed in a situation which would impede respiration.

That the living animal body can be temporarily heated and cooled, within certain limits, by external agency, is now fully established, and must be known to every one who has kept pace with physiological science. Yet on the assumption of the contrary does Dr. Caldwell rely, in some of his most ingenious arguments against the theory of animal heat which is advocated by Professor Liebig.

In his Physiology Vindicated we find the following:—"But, perhaps, the most herculean objection to Professer Liebig's hypothesis of vital temperature remains to be mentioned. It consists in the power which the

human body possesses to maintain its temperature, in defiance of the influence of an extremely hot, as well as of an extremely cold atmosphere. Nor do we know that this power has ever yet been fairly analyzed, commented on, and applied to the purpose of expounding the production of animal heat.

"As far as reports of experiments inform us, the temperature of the body of man, in a healthy condition, has never been raised above from 100° to 101° or 102° of Fahrenheit. Yet have men at sundry times exposed themselves to an atmosphere whose heat ranged from 200° to 500°." p. 44.

Judging from the known industry and accumen of the critic, as well as from the confidence of his style, the reader would be led to believe that the Professor had studied and weighed the results of all the experiments which had ever been published on the subject in question; but it will be seen, upon examination, that the only experiments on which he relies to sustain his positions, are those which were made, in the years 1775 and 1777 by Sir Joseph Banks, Dr. Fordyce, Dr. Blagden, Dr. Dodson of Liverpool, and the celebrated John Hunter; whilst all that have been performed for the last sixty-six years are either unknown to him or wilfully disregarded. Nor does he take into estimation the several disturbing circumstances and causes of error, connected with the experiments as performed by Dr. Fordyce and his cotemporaries; which misled them in their deductions; but which more modern experimenters, with their improved knowledge of nature, have properly appreciated. We mean, for example, the imperfection of their thermometers, and the neglect to ascertain the precise temperature of their bodies before and after the experiment; the dryness and moisture of the hot air to which they exposed themselves, and, consequently, the relative amount of evaporation from their surfaces; the extreme slowness with which heat is communicated from hot air; and the influence of clothing.

Yet, even in the quotation of these ambiguous experiments Dr. Caldwell has not confined himself strictly to the letter of the text, but has occasionally *amended* it to suit his own peculiar views.—He says, for instance, that men have exposed themselves to an atmosphere whose heat ranged "from 200° to near 500° Fahr;" but on reference to the Philosophical Transactions of the Royal Society, for 1775, in which the account of these experiments is published, I find the fact to be, that it ranged from 110° to a little above 260°; which was the highest temperature to which any of them were exposed.

It may be said that further authority is given in the following passage of the critic:—"Before the time of the performance of these experiments in London, MM. Duhamel and Tillet, two distinguished and enterprising French physicians, exposed themselves, (or rather two young women), to an atmospheric temperature of 325°. And, not many years ago, it was confidently asserted that M. Chaubert, (usually called the *Fire-king*,") exposed himself to a heat of about 500°. We do not vouch for the heat to which the "fire-king" was exposed, having been as high as 500°; but it is not questioned that it was very intense."—*Phys. Vind, p.* 45. But on reference to the record, I find the greatest heat sustained by the young women was 264°; and it is well known that the wonderful exploit of the "fire king" was eked out by putting the thermometer in the hottest part of the oven while he remained in a comparatively cool position; so that nothing certain can be predicated of them.

Again, Dr. Caldwell says.—"Into a room *about twenty feet square*, heated to 210°, Dr. Blagden entered alone, and in a few minutes, the thermometer, suspended several yards from him fell to 198°. The heat was once more raised to 211°, and Sir Joseph Banks entering alone, it soon fell again to 198°. And when the three entered together, it fell of course with much more rapidity, and therefore to a greater extent in a given time. Thus, we repeat, did the human body not only retain its own standard heat, in the midst of a temperature much more than 100° above it; it speedily reduced that temperature, in the entire atmosphere of a large room in one instance 12°, and in another 13°. The precise amount of its fall, when the three experimenters entered at once we do not remember." *Phys. Vind, p.* 44.

But the Philosophical Transactions state, (p. 607), that the room was "14 *feet by* 12 *in length and width and* 11 *in height* heated by a round stove or cockle of cast iron, which stood in the middle, with a tube for the smoke carried from it through one of the sides." They further say, that after the three gentlemen had entered the room, and the thermometer "sunk very fast," it was agreed that for the future, only one person should go in at a time, and orders were given to raise the fire as much as possible. Soon afterwards, Dr. Solander entered the room alone, and saw the thermometer at 210°, but during the three minutes he staid there, it sunk to 196°. Another time he found it almost five minutes before the heat was lessened from 210° to 196°. Mr. Banks closed the whole by going in

when the thermometer stood at 211°, he remained seven minutes in which time the quicksilver had sunk to 198°, *but cold air had been let into the room by a person who went in and came out again during Mr. Banks stay.*" This latter passage, suppressed by the critic, gives us a key.

These experiments were performed in cold weather—on the 23rd of of January—and the admission of cold air, on the opening of the door, is sufficient to account for the greater part of the depression of temperature observed; which was indicated by their thermometers only after some little lapse of time. Another quotation from the Transactions may elucidate this:—"The slowness with which air communicates its heat is further shown, in a remarkable manner, by the thermometers they brought with them into the room, none of which at the end of twenty minutes, in the first experiment, had acquired the real heat of the air by several degrees." (p. 608). In the subsequent experiments, made in April of the same year, when the weather was warmer, and when pains were taken by lighting the fire the preceding day, and keeping it up all night, to make every thing in the room, and the walls, warm; it is not stated that the mercury fell on the entrance of the experimenters, but that it rose while they were in the room. So that the *immense* and mysterious cooling power of the animal body, which Dr. Caldwell attributes to the independent action of *vitality*, is not proved by the experiments which he triumphantly mis-quotes.

Equally erroneous impressions are conveyed by the following statements of the professor, and his remarks and arguments based upon them.

"Messrs. Banks, Blagden and Fordyce affirm, that when in the heated rooms, their persons instead of being *exhaling* bodies, were powerfully condensing ones."—*Phys. Vind, p.* 45.

"When either of the gentlemen, when in the heated room, held in his hand a Florence flask filled with water; its heat rose to 120° Fahrenheit; and, even at that temperature *it* was a condenser of the surrounding vapor."—*Phys. Vind, p.* 46.

The *truth* is, that *Dr. Fordyce alone* performed the experiment alluded to; using for the purpose a suite of three rooms, the hottest of which was heated to a temperature of from 110° to 130°, by flues in the floor; and its air loaded with steam *by pouring on boiling water.* The observations of all the other gentlemen named were exclusively made in *another room*, of which we have already given the description, containing hot *dry air*; which, it is expressly stated, "had served for many of his (Dr. Fordyce's) experiments with dry air," and in which evaporation from their

bodies must not only have been unchecked but very much accelerated. The Florence flask was used *but in one experiment*, by Dr. Fordyce alone, in his second experiment; the water in it was at the temperature of 100°; when handed to him, in the hot vapor chamber heated to 130°, and it condensed moisture on its sides until the water within had risen to 122°. The heat of his body was brought up to 100°, but he omits to mention what was its previous and natural temperature.

Caloric was undoubtedly communicated to his body, and in larger amount than would have been conveyed in *dry air* equally heated; as is proved by the following passages in the account of these experiments:—"Dr. Fordyce has since had occasion, in making other experiments, to go frequently into a much greater heat, where the air was dry, and to stay there a much longer time, without being nearly so much affected."—*Phil. Trans*, 1775, *p.* 606. But the exact amount of that heat cannot be rigidly ascertained from the history given, and it is by no means certain, that the moisture which appeared on his body, and which he supposed was the effect of *condensation*, may not have been mainly the result of *transudation from it*; nor that vapor, of a high tension, may not have been continually passing from the exterior surface of that moisture, into the atmosphere of the room. The matter is therefore not so simple as Professor Caldwell would lead us to believe; nor do the facts sustain him in the old and exploded hypothesis stated in the following paragraph:—

"They are adduced for the purpose of proving, and we contend they do prove with clearness, the existence, in the body of man, of an anti-calorific power essentially different in its nature and action from any chemical power. Why? Because it does what chemistry can neither do, nor explain. It is, moreover, of a higher order than any thing chemical. It is a power that can *warm* without *combustion*, and *cool* without *exhalation*. For in the cases just referred to it evidently did both."—*Phys. Vind*, *p.* 47.

If, upon accurate examination and calculation, it should be found that the *actual amount of heat commuicated* to the body, in such experiments, *added to that generated in it*, for the time being, is greater than the quantity lost by cutaneous and pulmonary transpiration and evaporation, added to what is necessary to keep up or raise the temperature of the body;—then, and not till then, may we look for a power of annihilating heat in the animal organism. But this cannot be proven by any of the experiments which have hitherto been performed; and therefore the results of

these offer no objection to the theory of animal heat which is supported by Liebig.

All experiments of this kind, in *heated air or vapor*, are exceedingly fallacious; and principally from the *extreme slowness* with which they part with caloric to bodies immersed in them; thus communicating a much smaller amount, in a given time, than would be conveyed by better conductors of heat at a much lower temperature. For example, whilst persons can live in air at 200° or 300°, for some little time; their bodies being but very slowly heated by it, especially when they touch no good conductors, and are, in some measure, protected by clothing; contact with heated metalic substances, at a much lower temperature, would almost instantly destroy life.

This fact was observed by the experimenters above alluded to, as will be seen in the following extract from the "Philosophic Transactions." "The same person who felt no inconvenience from air heated to 211°, could not bear quicksilver at 120°, and could just bear rectified spirits at 130°.' Quicksilver, we are told in a note, was insupportable above 117°, water above 123°, and oil above 129°. The truth conveyed by these facts is clear, that the better the conducting power of the medium, the lower the temperature which can be supported by the animal body exposed to it; because caloric is more rapidly communicated by the good conductors than by the bad ones, and the heat of the body is more rapidly carried up by them, to the limit of intolerance.

Some of the experiments of Dr. Dodson of Liverpool, performed also in 1775, and detailed in the same volume with those of Dr. Fordyce and others, exhibit in a most striking manner, the extreme slowness with which heat passes from hot air into bodies which are immersed in it, and which are not in contact with any good conductor.

"*Experiment* 7.—Part of the shell of an egg was peeled away, leaving only the film which surrounded the white; and part of the white being drawn out, the film sunk so as to form a little cup. This cup was filled with the albumen ovi, which was consequently detached as much as possible from every thing but the contact of the air and of the film which formed the cup. The lower part of the egg stood on some light tow in the bottom of a gallipot, and was placed on the wooden seat in the stove. The quicksilver in the thermometer still continued at 224°. After remaining in the stove for an hour, the lower part of the egg, which was covered by the shell, was firmly coagulated; but that which was in the little cup

was fluid and transparent. At the end of another hour it was still fluid, except on the edges where it was thinnest; and here it was still transparent; a sufficient proof that it was dried, not coagulated." As the pure white of egg would have coagulated at 140°, we have here the proof, that in the course of two hours, that temperature had not been communicated to it, although the heat of the surrounding air was at 224°. Had the albumen been poured on the better conducting medium, an iron plate, heated only to 150°, it would have attained the temperature of coagulation almost in an instant.

When the animal body is exposed to hot air, as in the experiments above quoted, heat is very slowly communicated. Yet it does pass into it, and for the time, a portion of that heat is consumed in raising the *actual temperature* of the body. The powers of the system oppose this action by the means of the unusual transpiration and evaporation of moisture—every particle of water evaporated, carrying off with it, in the latent state, nearly 1000 degrees of caloric. These processes increase as the temperature rises; and, if they are not sufficient to prevent the gradual rise of the heat of the body, beyond a certain, not very distant limit, the powers of life succumb and the animal dies.

In former times, the rise of water in the stem of a pump, was supposed to be explained by the assumption, that nature had a *horror or dread of a vacuum;* but, when it was found that water would not thus rise much above thirty feet in height, the Aristotelian philosophers were obliged to admit that the *horror* was a limited one. In like manner, Professor Caldwell prefers to supercede the facts above stated, by the assumption of a *constitutional instinct*, as follows:

"The system of man, then, we say, obviously possesses a hidden and unknown power, which enables it to control caloric, and render it subservient to its own ends. And that power is a *vital* one. In the case we are considering, the welfare of the system required the production of *latency*, and the latency was produced. In another case, where the same welfare requires caloric to be *evolved*—the *evolution* is effected. In each instance, a power that might well perhaps be denominated a *constitutional instinct*, fitted to subserve the *good* of the system, acts in accordance with the *exigency* of the system."—*Phys. Vind. p.* 50.

We shall proceed to show, that this mysterious *instinct* is also, like the ancient *horror vacui*, limited in its existence.

In no experiment has an animal sustained, even in the imperfect conducting medium, atmospheric air, the high temperature referred to above, for more than two hours.

The most accurate and complete experiments of this kind were performed by MM. Delaroche and Berger, in 1806, an abstract of which may be found in the admirable work of W. F. Edwards, "*On the Influence of the Physical Agents on Life*," which we commend, especially, to the more attentive study of our critic, as a work that may remove many of his difficulties, and probably may increase the amount of his physiological knowledge: Some facts from which, however, we will take the liberty to quote.

First, then, in relation to *dry* hot air, as compared with that containing vapor, and the still better conducting medium, hot water.

M. Berger sustained, the temperature of 229° Fah., in hot dry air, for seven minutes, and Blagden that of from 240° to 260° Fah., for eight minutes; but on the other hand—

"M. Delaroche could not support, above ten minutes and a half, a vapor bath, which, at first, at 99° Fah., rose in eight minutes to 124° Fah., and afterwards fell one degree.

"M. Berger was obliged, in twelve minutes and a half, to come out of a vapor bath, of which the temperature had risen from 106° Fah., to about 129° Fah. He was weak, and tottered on his legs, and was affected with vertigo. The weakness and thirst lasted the remainder of the day.

"Lemonnier, being at Bareges, plunged into the hottest spring, which was at 113° Fah. He could not remain in it above eight minutes. Violent agitation and giddiness forced him out."

In this connection, M. Edwards also states: "I have never seen batrachians which could live above two minutes in water, at 104° Fah., although I have taken the precaution of holding a part of the head out of the water, to allow the pulmonary respiration to continue; whilst individuals of the same species, (frogs,) have supported the heat of air, charged with vapor, at the same temperature, above five hours."

Some exceptional cases can doubtless be quoted as objections to these facts; but we believe that, if those which *really exist*, are properly examined, they will give their own explanation in some *peculiar* provision, adapted to the *unusual phenomena* they present.

In relation to the fact, that the animal temperature *may be changed* by external heat, notwithstanding the resources and agents employed by the vital powers, and that, when carried beyond certain limits, death is caused, we will quote still farther from Edwards.

MM. Delaroche and Berger, in several experiments, found their own temperature to rise to the extent of from 3° to 9° Fah., when they exposed

their persons, for the space of from eight to sixteen minutes, to the influence of hot air or vapor, heated to from 106° to 186° Fah.

"Experiments upon man cannot of course be carried far enough to ascertain what is the highest degree which his temperature can attain under the influence of excessive atmospheric heat." But in various species of mammalia and birds, exposed by MM. Delaroche and Berger, "to different degrees of hot air, the lowest 122° Fah., and the highest 200° 75 Fah.," in which they were left until they died. "Notwithstanding the diversity of species and of classes, and of the degrees of heat to which they were exposed, they all acquired nearly the same increase of temperature, the limits of the variation being from 11° 25 Fah. to 12° 92 Fah. The bodily temperature having been ascertained by a thermometer introduced far into the rectum," is free from objections.

"When we consider the uniformity of the above results, we may infer generally, that man and warm-blooded animals, under the influence of excessive heat and a dry air, could not, during life, experience a higher elevation of bodily temperature than 12° 6 Fah., or 14° Fah."*

This heating of the body, it is evident, must be taken into consideration in all calculations relative to the heat-sustaining or *heat-destroying* power of animals. It must be equally clear, that, although it is usual to state in *general terms*, (and we find the statement in Liebig's animal chemistry,) that human temperature remains unchangeable in all external vicissitudes; and, although Capt. Parry relates that the animal heat was not sensibly modified in the extreme cold to which he and his crews were exposed, yet, such a statement is not to be received or applied in its most definite sense.

In addition to the facts above detailed, we will state, that the observations of Dr. Jno. Davy proved, that the human temperature increased from the poles to the equator; and the recent experiments, made during a late French voyage of discovery, in the ship *Bonite*, are to the same effect.

These observations, made by MM. Eydoux and Souleyet, on ten of the crew of the Bonite, of different ages and temperaments, all submitted to nearly the same regimen, and engaged in the same employments, were taken at the same hour, 3 P. M., of every day, from the time of their arrival at at Rio Janeiro until they returned to France. They amounted to more than four thousand in number, and the results led to the conclusion, that the *human temperature rose and fell at the same time with the exterior temperature*, although in a smaller ratio. According to the meaning of their observations, a difference of 40 degrees, (centigrade,) in the external atmosphere, produced only a change of 1 degree (centigrade) in the living body. The temperature of birds, observed in the different latitudes, presented a difference of from 99 to 106° Fah. These experiments were made simply with the ordinary thermometer, introduced into the mucous cavities, and particularly into the rectum.

[CONCLUDED IN NEXT NUMBER.]

*Edwards on Phys. Agts. London, 1832. pp. 196—7.

Dr. Little observed—That his success with tartar emetic had not been very encouraging, as, in a majority of cases, irritation of the mucous membrane of the stomach followed the administration of this article. He would not, however, abandon it entirely. He frequently substituted opium to some extent, and the results were very satisfactory, though he did not use this article in as early a stage as was indicated by Dr. T., nor did he combine it with cathartics. He agreed with the paper in other respects. He usually observed fever to subside when the constitutional effects of mercury were produced.

Dr. Griswold believes there does exist a remittent fever, modified by a bilious condition. It is caused by malaria, operating through the blood on the nervous system. In a majority of the cases that have come under his observation, it has assumed the remittent form. In the *treatment* of this form of fever, he seldom resorts to bloodletting, except when the disease is complicated with local inflammation. He usually gives a dose of calomel, and if remission follows, quinine is at once administered. This remedy he gives in doses of ten grains, repeated every second hour, and the paroxysm does not return. This practice will be modified by accidental complications, as when diarrhœa is present.

Dr. J. C. Thompson agreed with Dr. Griswold in his general views of remittent fever. He remarked that he used the lancet during the febrile exacerbation, after which he administered a combination of calomel, morphine and ipecac. This course will produce diaphoresis, and a remission, after which he relies on large doses of quinine.

Dr. Harrison observed—That all medicinal agents are relative: no practice will admit of universal application. Bilious fever is divisible into three stages—suffocated excitement, organic lesions, and exhaustion. The treatment must correspond to the pathology of the disease. The quinine practice, in bilious *remittent* fever, in the primary or secondary stage, where high arterial excitement exists, would be decidedly pernicious—at least in the district where he resides: it may be proper elsewhere, as in malarious districts. In answer to Dr. Dawson's inquiry, does bilious remittent fever exist as a separate and distinct disease, he would state that it is a distinct entity. It is produced exclusively by *miasm*; if brought on by cold, it is not *bilious*

fever. Miasm produces a *specific* action on the constitution. In cities, as Philadelphia, they see but little bilious fever, their fevers being inflammatory or typhoid. The *cause* of bilious fever acts on the *solids*. The nervous extremities—the sentient part of the system—receive the morbific impression. If it acted on the blood, the whole system would be a mass of disease; every tissue would be saturated with the poison. Putrid matter in the blood brings on disease at once. Quinine and opium cannot gain admission into the blood, and produce their remedial agency through the medium of that fluid; but they primarily impress the nervous system, and subvert the morbid train of action in the solids. It is asked, does the disease exist without *structural lesion?* Post-mortem examinations show that it may prove fatal without any appreciable organic lesion. The microscope is not available in such cases. Microscopic pathology and medicine deserve but little confidence. Cold water, in the first stage, is valuable; but he doubts the propriety of its administration, *ad libitum*, in the second and third stages. If there is diminished action of the surface, tepid water will be preferable. Opium may prove injurious by over-stimulating, and at the same time by arresting all the secretions but that of the skin. Small doses may arrest the renal secretion: this, added to its stimulating property, and causing cerebral oppression, renders it objectionable.

Dr. Dawson inquired what signification was attached to *congestion*.

Dr. Harrison replied—Congestion may be *nervous depression*; hysteria may simulate congestion; and there is what Rush calls *suffocated excitement*. If intense inflammation of the brain or stomach exists, there will be small pulse and cold extremities. Here blood-letting would be proper.

Dr. R. Thompson observed—That medicines operate on the nervous system—1, by immediate contact with the receiving organ; 2, through the medium of the blood. Irritable states of the system may *suppress* the *urinary secretion*, and opium will *restore* it. Dr. T. also remarked, that he would not administer slippery-elm bark, or mucilage, as he believed it to be pernicious. If poultices of slippery-elm are applied to the surface, *pustules* will be produced; and, instead of allaying irritation, these mucilages produce that condition. He has seen dysentery produced by elm bark.

THE WESTERN AND SOUTHERN MEDICAL RECORDER.—The publisher of the Recorder, deeming it inexpedient to continue the work has entered into an arrangement by which the subscription list is transferred to the Western Lancet.

The subscribers to the Recorder have received four numbers of that work, and to complete the volume, they will be supplied with eight numbers of the Lancet. For the volume thus completed, *three dollars* will be charged, the regular terms of the Lancet, payment for which must be made to the Editor of the Lancet. Those who have paid the publisher of the Recorder for the present volume, will be credited accordingly. At the close of the volume an index will be furnished, embracing the contents of the four numbers of the Recorder, which will make the volume complete and suituable for binding.

We regret extremely, as will also its patrons, the loss of so valuable a cotemperary as the Recorder; but we take great pleasure in stating, that the profession will not be deprived of contributions to medical science from the pen of the very able Editor of that work. Prof. Cross, who justly ranks among the ablest medical philosophers and writers of the present age, has kindly consented to become a correspondent of the Lancet. We also invite the contributors to the Recorder to furnish their communications for the Lancet.

It is proper to add, that the suspension of the Recorder has not resulted from any failure on the part of Professor Cross.

TO CORRESPONDENTS.—Communications have been received from the following Correspondents, which will be inserted as early as circumstances will permit, viz.: Dr. S. Miller, Dr. B. Rush Mitchell, Dr. W. B. Dodson, Dr. C. H. Preston, Dr. A G. Preston, Dr. J. P. Harrison, Dr. W. B. Diver, Dr. J. Horne, Dr. S. Maguire, Dr. Wm. Judkins, Dr. Wm. Davidson, Dr. T. P. Albertson, Dr. Brockenbrough.

BOOKS RECEIVED.—Gross on the Intestines; Philip on Protracted Indigestion; Brodie on Disease of the Joints; Smith's Minor Surgery.

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ORIGINAL COMMUNICATIONS.

ART. I.—*A Case of Imperforate Urethra*—By S. MILLER, M. D, of Connersville, Ia; Member of the Medical and Chirurgical Society of Maryland.

THE subject of this report was a male child, æt. 24 hours, of Mr. B., a highly respectable citizen of this place; it was robust, large, and apparently well formed. In the course of twelve hours, however, from accouchment, pain and inability to void urine subpervened. Upon examining the penis, which I found was larger than common in infants of the same age, the prepuce was behind the glans penis, but without any stricture as is produced by paraphimosis. The glans penis, upon examination, was found perfectly destitute of an external orifice. Several lines from where the orifice of the urethra should have been there was a white vesicle the size of a pin's head, which I supposed, *a priori*, was where I would find the urethral orifice, but which when punctured proved not to be the external orifice of the urethra. As soon as I ascertained the imperforate state of the urethra, I apprised the family of the serious nature of the case, and requested Mr. B. to call another physician. Dr. D. Hall, of this place, was accordingly called in consultation, who, upon examination, found the urethra wanting. I now proposed to make a puncture through the glans penis precisely where the urethral orifice is generally located, then use an exploring probe; which operation was performed without any advantage. I then made an incision from the frænum of the penis to a point above the puncture, and above the place where the urethra is generally found. We now used the exploring probe, but with no better success than on the former occasion.

I now apprised the parents that their infant without relief would soon die;—that the operation necessary to save the child had never been performed successfully, so far as my surgical knowledge extended;—but if they were willing, I would institute an operation and form an artificial urethra, whereby I might probably save the child. I also remarked to the parents, that if death followed, it would only be exchanging one of the most agonizing, certainly fatal maladies, for a more speedy dissolution.

The operation was performed March 21st, 1842, at half past five o'clock P. M. The child was placed on a pillow, on the lap of an assistant, with its hips resting on the edge of the pillow, and the lower extremities flexed on the body as when performing the operation of Lithotomy. I commenced the operation by making an incision from the raphe of the scrotum, somewhat posterior to the arch of the pubis, to a point forward to intercept the incision already made through the glans penis; at the same time saving the integuments of the scrotum as much as possible by an assistant retracting them back.

The second incision I made with a spear pointed bistoury, with the back of the instrument facing the pubis, and pushing it forward and from me until I reached the point where I could push the instrument upward on its back; at the same time guarding as much as possible from cutting too mear the dorsal portion of the penis, so as to avoid dividing the pubio-penal artery, or a much more important artery, the internal pudic. This incision extended about one inch and a half inside of the os pubis and within the pelvis.

In the third and last stage of the operation, I used a large silver probe with a slight bulb upon it; first, with the view of exploring, which I found of no effect. I now forced the probe in a direct line towards the bladder; the probe imparted the same sensation as in passing the catheter through the spongy portion of the penis, and could only be known by him who has had the misfortune to have met with this accident in introducing the metalic catheter. I forced the probe on, (directed by the minds eye rather than otherwise), upward of an inch, when the instrument passed, and imparted the same sensation as when introducing a catheter into a healthy urethra; for the space of perhaps half an inch there was no resistence to the instrument, immediately after w[illegible]mall quantity of urine passed off. The hæmorrhage was as yet [illegible]derable. The little patient was somewhat exhausted, but not to such an alarming extent as I at first anticipated. I now withdrew the probe without difficulty and

introduced a small bougie. The integuments were now adjusted so as to cover the greater part of the incision in the corpora spongiosum; an adhesive strip and small roller finished the dressing.

March 22nd, A. M.—Found the child exhausted, apparently amounting to a collapse. Upon examination of the child, I found that it labored under hæmorrhage sufficient to destroy it if not speedily arrested. I now ascertained that the bougie was badly adapted to this case, inasmuch as the urine had to pass beside the instrument and would keep up the hæmorrhage by preventing any coagula from forming in the divided vessels of the penis. I resolved to introduce a gum elastic catheter, which I found difficult to procure sufficiently small, and therefore used one of the smaller adult catheters. Then fastened the catheter so as to retain it in the place I desired the artificial urethra. This I did by wrapping that part of the catheter that extended beyond the glans penis with thread; then applying a firm adhesive strip around the penis in its whole length, and a small roller was applied moderately tight. For the purpose of confining the instrument in the penis, an adhesive strip was attached, extending from the pubes over the dressing of the penis to the wrapped portion of the catheter that projected beyond the glans penis. From this moment the hæmorrhage subsided. I now gave four drops of Godfrey's Cordial with tincture of Castor.

At 8 P. M, visited the child and found it much improved; sucked some. Upon examination found the clothes very wet and uncomfortable by the urine passing through the catheter, which was remedied by corking up the catheter.—There was no appearance of blood about the dressing.

23rd, at 8 P. M, I found the child somewhat fretful; I removed the roller from around the penis, and applied some patent lint saturated in olive oil, and reapplied the roller round the penis very slack. Ordered some Godfrey's Cordial to be given.

24th, at 7 o'clock. A. M, I found my little patient quite restless; had considerable fever. There was now considerable *matter* or *pus* passing off around the sides of the catheter. Gave it two tea-spoonfuls of ol. ricini with two drops of tincture Opii. I saw the child again on the evening of the 24th. The febrile excitement had increased considerably; its lips were dry and parched, with an extreme desire to drink. Gave it two tea-spoonfuls of Castor oil; ordered a tea-spoonfuls to be given every hour until it operated. The penis at this time was swollen considerably.

25th, at 8 o'clock, A. M, I again saw the child, the febrile excitement continued; ascertained by the nurse that it had been very restless and refused to suck through the night; has had three evacuations from bowels. By some means the catheter was forced out of the artificial opening, and through which it had passed urine free and natural, according to the nurse. Since the expulsion of the catheter the child has rested well, which was about three hours. The union of the divided parts appear now to be sufficient to void the urine through the newly formed urethra, without any passing through the lips of the divided penis. I introduced on this occasion a new catheter, as the one formerly used was partly absorbed. Contrary to my wish I was compelled to introduce one a size larger than the former, which, however, was readily accomplished. In the introduction of this instrument there was much caution required, as it became necessary to give it the common curve as in male catheters, and which, if not cautiously and judiciously introduced, would lacerate the newly united corpora spongiosa, and penal integuments. The instrument was supported in the urethra as on the former occasion. Gave a weak solution of Nitrate of Potash with Gum Arabic. Ordered Godrey's Cordial to be given sufficient to produce quietude and sleep. At 9 o'clock P. M, I visited the child. The fever had abated much; had slept mostly during the day; sucked freely; looked much improved.

26th, 8, A. M.—There was manifest improvement since the preceding day. Sucks and sleeps apparently natural; but ascertained that the catheter was again ejected, which I reintroduced. As soon, however, as the instrument entered the bladder, I found the effort to expel very considerable, and to retain the instrument in the urethra I fastened a ribbon by a hitch noose around the extremity of the catheter, then passed the ribbon aroumd the body and tied it, and a second bandage over the penis and around the body, so as to confine the organ against the body.

27th.—The child continued comfortable.

28th, 7 A. M, found the child fretful, with considerable fever; ordered some Godfry's Cordial with Castor Oil.

At 7 P. M, visited the child again, found it very fretful; pulse frequent, quick, and remarkably small. The urine emitted a very ammoniacal odor; the nurse remarked that it had cold sweats several times through the course of the evening; starts—rolls up its eyes as if frightened; draws up its knees as in colic. Ordered Tincture Opii and Godfrey's Cordial to

be given in the dose of eight drops every hour, until it became quiet, together with flannel cloth, wrung out of warm hop and vinegar decoction applied over the abdomen.

29th, 8 o'clock A. M.—Had improved in every respect, and had rested moderately well through greater part of the night.

At 4 o'clock A. M, by violent expulsitory efforts of the sphincter of the bladder the catheter was forced out; the nurse remarked that it had strained some hours before it was expelled; that she guarded against its being expelled, by forcing the instrument back into the bladder several times before it was wholly discharged. Permitted the catheter to remain out of urethra for twenty four hours, through which period the child manifested apparently no disease.

30th, P. M.—Introduced a new catheter one size larger than the former; bandaged it as on former occasion.

April 1st, at 9 o'clock A. M, found the child apparently as pert as any child of this age; but had by violent expulsitory efforts expelled the catheter again. I ascertained from the mother that it had voided urine per saltum in a full stream through urethra; which proved most conclusively that the artificial canal would perform its function in this respect equally with a natural urethra. I would here remark that in all probability there was a natural urethra from the prostrate gland to the bladder, which accounts for the sphincter of the bladder performing its function in expelling and retaining the urine as in the natural urethra.

From this period there was nothing important, except that the catheter was expelled every day or two, notwithstanding I used every plan to retain it within the urethra heretofore adopted by authors.

I introduced the catheter the last time on the 10th of April, twenty one days after the operation. On the 12th dismissed the child as cured.

I saw the child on the 24th of July 1843, which was two years and six months after the operation; and I can safely say, that there is not a more robust, well formed child of its age in our town or country.

In conclusion, permit me to make a few general remarks. In this case, the reader will readily percieve the baneful effect of the bougie, and the succesful and happy result of the gum elastic catheter, in lieu, to restrain the hæmorrhage.

It will also be observed, that in the first place I endeavored to procure a very small catheter, as best calculated to fill the indications; but it is obvious that upon the size of the catheter depended the success of the oper-

ation, inasmuch as it was necessary that the urethra should be as large in this case as a urethra at puberty, because the canal being an artificial one, it would not grow with the growth of the subject.

ART. II.—*Case of Simulated Phthisis*—By B. RUSH MITCHELL, M. D, of Madison, Ia.

I observed in the July number of your valuable journal, a communication respecting what is styled Simulated Phthisis; and supposing that any additional case might be interesting to the profession, I forward to you, one which came under my own notice; although I know not that it will come strictly within the definition of Simulated Phthisis, it being more properly actual Phthisis induced by the presence of a foreign body within the chest. But to the case:

In the winter of 1839, I, in company with three other students, dissected the body of a negro girl aged 17, which was brought to the dissecting apartments of Transylvania. After removing the intestines, about which nothing remarkable was observed, we proceeded to examine the thoracic viscera. Upon opening the chest and exposing the lungs, I was struck with the number of miliary tubercles which occupied the middle and inferior lobes of the right, and the superior lobe of the left lung. Prosecuting the examination still further, I found that the superior lobe of the right lung had somewhat diminished in size, and softened in consistence, so that upon gentle pressure, the finger would go entirely through the lung. With a view of examining it more closely, I commenced the removal of the right lung, and was astonished to feel the edge of my knife grating against some metallic substance. Wishing to ascertain what it was, I removed the lung, and behind it, resting upon the ribs, I found the object of which I was in search. Upon inspection, it proved to be a carpenter's groove chisel, or rather a piece of one, about three inches long, and remarkably oxydized. I gave it to Professor Smith, who was at that time lecturing upon Tubercular Phthisis, who made the case the subject of some remarks which I was prevented from hearing. The chisel is, I believe, now in his possession.

The case seeming to be somewhat novel, I was induced, knowing where the girl came from, to make some inquiries respecting her previous history, and learned as follows:—About nine months before her death, she

complained of pain in the region of the bronchial bifurcation, the pain being at times excessive, accompanied with considerable dyspnœa. After a time these symptoms subsided, but were succeeded by a train of phenomena, which the physician in attendance judged to be indicative of consumption. There was a deep seated pain in the right clavicular region, dullness upon percussion, deficiency of the respiratory murmur, and muco-purulent expectoration. These symptoms continued some months, I think two, the girl gradually emaciating, and notwithstanding all remedies, she sunk a victim of Tubercular Phthisis.

The questions, how did the chisel engender the disease, and how did it get into this situation, are exceedingly interesting. There was no wound or scar upon the skin indicating that the instrument had been thrust into the cavity of the chest; therefore it was inferred that it had been swallowed. Soon after swallowing, perhaps a week, it lodged at the bifurcation of the bronchia, thus explaining the cause of the uneasiness she complained of in that locality; but it appears soon to have gone down the right bronchus until its progress was impeded by the diminished caliber of the tube. Here I conceive its presence induced inflammation, terminating in ulceration, allowing the metal to escape into the substance of the lung, from which it made it exit posteriorly. It may be that its exit was not complete, and that it might in part still be in the lung when I raised it from its site and dropped out, owing to the softened state of the lung; but of its being found posterior and exterior to the lung after the latter was raised, there can be no question. I have said that both lungs were tuberculous. The girl was not of a strumous diathesis,—no tubercles were found in the other viscera; but in the lungs where there was a foreign body present, they existed. So far as we know, the presence of a foreign body in any organ will develop inflammation; it is probable, therefore, that such was its effect in the present instance, if it be not rendered certain by the situation in which the foreign substance was found; and if this be admitted, we must conclude the tubercles were the result of the inflammation. And such, I believe, from the want of any evidence of physical or hereditary predisposition to phthisis, to have been the fact. But admitting this, the case proves nothing more, than that tubercles may have their origin in inflammation, and affords but slight foundation for the inflammationists to ground their theory of tubercular deposition upon.

In conclusion, it may appear singular that the girl did not tell that she had swallowed something; but to those who have resided about Lexington

and know the dread the negroes have of physicians, the case will lose somewhat of its singularity. But besides this, the girl had, I understood, threatened to destroy herself, and it may be that she swallowed the instrument with that design, but feared to confess it, dreading the anger of her mistress. I mentioned the case at the time, to the reporter of the cases in your last number, but I presume it had escaped his memory at the time of his writing. The gentlemen dissecting with me, were Dr. Flemming Glass of Ky, Dr. Williams from Tennessee, and Dr. E. Combs, of Mount Sterling, Ky.

ART. III. — *Case of Fracture of the Inferior Maxillary Bone, with a Description of an Apparatus for its Treatment* — By S. DUDLEY EVANS, M. D, of New Liberty, Ky.

IN all cases of fracture of the human bones, the local treatment is almost entirely in reference to the two primary indications, *i. e*, to the reduction of the pieces into their natural situation, and to the maintainance of them in that state, without motion, until the powers of the vital organization have repaid the injury. In fractures of the long bones of the extremities, these indications are generally easily fulfilled. There are, however, many cases of fracture, which, either from the shape, position, or connection with adjacent parts of the bone in which they occur, are extremely difficult to manage. This difficulty is sometimes met with in fractures of the lower jaw, as the following case will show.

August 1st, 1842, J. B. R, æt. about 40, of intemperate habits, in a pugilistic rencounter, received a blow upon the angle of the lower jaw, on the left side, which produced fracture in two places: first, in a line commencing at the base of the angle, and extending upwards and slightly forwards, and ending immediately posterior to dens sapiens; second, through the symphasis, separating the two front incisors. The fractures were adjusted, and the ordinary compresses and pasteboard splints were applied and confined by Dr. J. R. Barton's Bandage. The patient had previously lost two upper incisors, which afforded a convenient aperture, through which he could receive liquid diet. All things went on well for a week, but at the end of that time the patient became refractory with regard to his diettetic regulations, and forced a piece of pear through the aperture and attempted to swallow it. In this attempt, however, he became choked, and

in attempting to relieve himself, he made such violent struggles that the fragments were displaced; and after this every adjustment of the dressings with a view to prevent motion proved abortive, until the 18th day after the occurrence of the fracture, and it began to be doubted that an osseous union of the fragments would take place. I then resorted to the following expedient:—Two pieces of saddler's skirting were cut out, somewhat of a *horse-shoe* shape, so as to fit accurately within the base of the inferior maxillary bone. These pieces of leather were then placed one upon the other, firmly stitched together. The edges were rounded off, and rendered smooth by scraping, and the whole was firmly wrapped with a narrow piece of bandage. The right leg of the apparatus was allowed to extend backwards as far as the angle of the jaw; the left was an inch longer, and turned up in the direction of the ramus, so as to lie immediately behind, and within its edge. That part of the apparatus which was designed to lie immediately behind the symphasis of the chin, was half an inch in breadth; and the legs gradually became narrower as they receded from this point. The apparatus thus prepared, was moistened in vinegar, until it could be accurately moulded to the shape of the parts with which it was designed to lie in contact. It was then applied to the fractured jaw, and forced up so as to lie within the edge of the base of the bone, and confined in that situation by Dr. Barton's Bandage. The fractures speedily united, and the patient had a good jaw.

The advantages which this apparatus possesses, are, that it enables us to counteract the force of the muscles attached to the inner surface of the bone, tending to draw it inwards in every act of deglutition; and to apply pressure to the bone in four directions, viz: downwards, by contact with the upper row of teeth, inwards and upwards by pasteboard splints and the bandage, and outwards by the apparatus above describe. When the leather becomes dry it possesses almost as much firmness and resistence as a piece of board, and as it is confined within the edge of the bone by the bandage, it effectually exerts counter pressure, from the side opposite the fracture. I have thus been enabled to apply pressure to the lower jaw in every direction, almost as completely as we can apply it to to the humerus or femur.

ART. IV. — *Operation for Cancer of the Lower Lip* — By W. B. DODSON, M. D, Surgeon to the L. M. Hospital, Louisville, Ky.

MR. SHIPLEY, aged about fifty years, a native of the north of England, was admitted into the Hospital, July 27th 1842.

Habits regular, and general health good; followed the seas fifteen or twenty years; has been a resident of Kentucky in the vicinity of Lexington four or five years.

About eighteen months since, a small wart, apparently of the common kind, appeared upon the upper surface of the under lip, above the mesial line; he plucked it out, and it was soon reproduced, and so on a great number of times; when at length it assumed a violent inflammatory action, which in the course of a few weeks resulted in extensive ulceration, and frequent hemorrhage; the general health being very much impaired. It made rapid progress, being developed to this revoltiug appearance in the short space of ten or twelve weeks, during which time, *faith*, *herbs*, *roots*, etc, were resorted to without benefit.

The following cut represents the appearance of the patient before the operation:—

The patient was placed upon the operating table with his head elevated—a skillful assistant stationed behind him to control the hemorrhage by making steady and firm pressure with his fingers upon each arteria facialis where it turns up over the inferior maxillary. The mass of diseased lip was removed by an incision from each angle of the mouth, resembling in shape the letter V, and meeting at the symphasis of the chin. The hemorrhage was arrested by torsion, after which the parts were examined, the wound cleansed and the edges

nearly the whole extent, approximated by the interrupted suture; but union by the first intention did not take place, owing to the extreme debility, and deterioration of the patient's health.

Before the operation, pulse 86, and tranquil; immediately after, 96.

28th A. M.—Pulse 80; skin cool; rested well, but did not sleep much; took a dose of morphine; the lip feels more comfortable than was expected.

29th Slept pretty well last night, pulse 80, and regular.

30th Did not rest well last night, but suffered little or no pain, pulse 76

August 1st Removed the pins; the inferior part of the wound presents a very unfavorable appearance, emitting considerable fetor. Cleansed the surface of the wound thoroughly with warm water, after which a weak solution of Chloride of Soda was applied, dressed with dry lint, secured with adhesive straps; pulse 84. A nutritious diet and wine prescribed.

2nd A very favorable change has taken place in the appearance of the wound since yesterday—is granulating—discharge very much improved in quality.

3rd Pulse 85; had slight diarrhœa last night, otherwise rested very well; bread and milk poultice to the lip; beef tea to be given freely through the day.

4th Rested well last night without an opiate; wound looks well; dressed with dry lint and adhesive straps.

5th Pulse 80; did not rest well last night, without being able to assign any particular cause for being restless; both the wound and the discharge have a favorable appearance—the latter being quite copious; says he feels very well; looks improved, and was reading a book when I entered the ward.

6th and 7th Doing very well.

8th Slept well last night; changed the dressing from lint to that of a bread and milk poultice, for the purpose of promoting a more luxuriant growth of granulations.

9th Feels very well; the same treatment continued.

10th Doing well; poultice continued.

11th The same as yesterday.

12th and 13th, About the same.

14th Rested well last night, under the influence of an opiate; describes slight darting pains, now and then, from the inferior part of the wound, (he says very slight and not frequent); a small tuft of fungous has sprang up in the inferior part of the chasm, it is feared of a malignant character, indicative of a return of the former disease.

15th Feels well; the fungous has increased, particularly on the right side; poultice omitted and dry cotton applied, secured by adhesive straps, making slight compression.

16th Slept about an hour last night: fungous slightly diminished.

17th Rested better last night; fungous diminished.

18th Slept very well last night; fungous rather less than yesterday.

20th Still diminishing.

22nd Had some smarting pain in the lip yesterday: did not sleep so well last night.

24th The fungous less than when I saw him last.

26th Complains of a little tightness in the right side of the lip where the upper pin passed through it.

28th Rested well last night; fungous nearly disappeared.

Sept 1st. The ward was transferred to Professor Gross, by whom the patient was discharged, cured, in a few days; and has remained free from any indication of a return of the disease up to the present time.

A subsequent operation was performed in October last, to remedy a slight defect which resulted from the first. A chasm or semilunar notch existed, on the right side, just three-fourths of an inch in length, and three-sixteenths of an inch in depth at the center, through which the saliva was prone to escape, especially in the cold season.

Two modes of operating were proposed, and the probable results fully explained to the patient.—First, by detaching the lip from the jaw, elevating and securing it appropriately with adhesive straps and bandage; and the head bowed towards the sternum, and secured in that position until reunion was accomplished. The result of this operation was fully anticipated and thoroughly explained to the patient, notwithstanding he preferred it to the following, which was recommended, and to which he voluntarily said he would submit should the first fail.

The second mode, and the one insisted upon, was to make an insision parallel with the base of the lower jaw and the mouth, when

closed, about midway between the two, and of a sufficient length to admit of dissecting the lip from its adhesions (which were loose and cellular) except at the point of deficiency, elevate it sufficiently, and secure it thus by an appropriate dressing until reunion should take place; leaving the chasm made by the horizonal incision to fill up by the granulating process.

It is fair to state that the operation as performed, was apparently successful, but owing to the rigidity of the cicatrix and its loose attachment, the lip gradually gained, to some extent, its former position.

The deficiency in the lip at the present time is very inconsiderable.

ART. V.—*Case of Neuralgia.* Extracted from an Essay on that subject, read before the Stark County Medical Society, O., Oct. 26, 1841. By C. H. PRESTON, M. D., of Paris, O.

CASE 4th.—*Sept.* 1841.—Visited Mrs. E., aged fifty years—until recently a stout, robust matron. She has menstruated about once in six months for the last three or four years. Her health has been vigorous and uninterrupted, with the exception of one or two attacks of pleuritis in early life. About last Christmas she experienced a disagreeable sensation in the lower portion of the rectum, which she attributed to hemorrhoids, a disease she had suffered slightly from about twenty-five years previously. This uneasiness was not continuous or severe, but was felt at times for some months, and began gradually to increase, till her sufferings attained a degree that elicited some anxiety as to the cause and the means most likely to remove it. In this emergency I was called on. On inquiry I was told, in addition to the above, that, when the paroxysms came on, their severity was almost insupportable, and that they did not supervene at regular periods—frequently two, three, or four days elapsing, with nothing more than a kind of *malaise* during the intermissions. During the paroxysm, she is unable to lie down, but must sit, supporting the part with her hand, or pace the floor in indescribable agony, suffering, to use her own words, "as if ten thousand dogs were tearing her." She defecates without pain.

The sphincter was spasmodically contracted and exquisitely sensitive; parts slightly tumefied; one or two small hemorrhoidal tumors at the verge of the anus; pulse full; tongue clean and healthy; appetite good; bowels regular; slight excitement during the paroxysms.

Pressure on the spine detected no tenderness. A slight fissure was found in the posterior part of the anus. The neck of the uterus was clear of engorgement and healthy.

It is not necessary to detail the first treatment farther than to state, that it consisted in v. s., mild catharsis; light diet, alkaline bath, &c. About a week from this time, the paroxysms had become quartan, and the general symptoms as before. ℞. 8 grs. sul. quina, in divided doses, prior to each paroxysm, for eight days; sul. morph. ¼ gr. every two or three hours in paroxysm; opium suppository. No effect, only that the paroxysms became irregular.

Now, Oct. 8, discovered tenderness from pressure on the last cervical, the sixth dorsal, and the lower lumbar vertebræ. She was troubled with an occasional eructation, or throwing up of the contents of her stomach, prior to this time, with little nausea or sickness; and pressure on the dorsal vertebræ immediately excited it to an extent that it lasted several hours. Pressure on the lumbar region did not in the least aggravate the pain in the rectum, as might have been expected, the fifth and sixth twigs of the sacral plexus being distributed to that part and to the sphincter.

Apply a blister the whole length of the spine—continue the quinine and morphia—occasional mild catharsis.

Oct. 14*th.* Slight improvement. Paroxysms subside, with extreme sickness and emesis. Discontinue quinine—apply tart. emet. oint. to spine.

19*th.* In statu quo. ℞. Meglin's pills, ext. valer., ext. hyos., ox. zinc, aa. one grain, made into a pill: take one morning and evening.

Appetite in the intermissions, good. ℞. Take three pills a day for three days, and then increase them to five or six, if they will be borne. Apply the ointment. Partially divided the sphincter. Thus far when the report was read.

28.*th.* Vomiting ceased—pain in sphincter not so severe, and increased by defecation, probably in consequence of the incision. Takes four or five of the pills daily—improving.

Oct. 30th. Continue pills—apply eight cups to spine.

Nov. 6th. Improving. Continue pills, apply twelve cups to spine; tenderness scarcely perceptible.

13th. Slight tenesmus on going to stool. Discontinue the visits. From that time to the present, (19 months,) the patient has enjoyed her usual good health and hilarity.

REMARKS.—Could this be a case of hysteric neuralgia? This lady is of the sanguine nervous temperament, but was never the subject of hysteria. It was not of malarious origin, there being no sources of that poison in her vicinity—though McCulloch gives a case from that source, in which the pain was similarly located. And, though the connection between the spinal difficulty and the stomach, was direct and obvious, it is not clear that such was the case with the neuralgic pain, as pressure on the tender spine did not affect it. The neuralgic pain existed also prior to any evidence of the spinal irritation. Duparcqe, in his valuable essay on the diseases of the uterus, relates a case (41) analogous to this in many of its features, attended with engorgement of the neck of that organ, which he called *periodical hysteralgia*, in which the pains were mainly seated at the lower part of the sacrum, but at their period of increase, radiated from this center to the loins, the external parts of generation, and the neck of the bladder, where they caused a frequent desire to urinate: they abated at the end of a few minutes, or quickly disappeared to return in the same manner, *when they became intolerable.* He cured this case with the Meglin pills, and depletion from the neck of the uterus. In the case here related, there was no congestion or other appreciable disease of that organ; and she never had suffered from any affection of the sexual system. Was it not an effect of that peculiarity of the uterine system, induced by that influence called the turn of life, and consequently properly termed hysteric neuralgia? The location of the pain was probably in consequence of the anal fissure. A surcharge of innervation towards the organs, induced by this constitutional period, probably originated this severe case: hence the powerful effect of Meglin's pills, to the efficacy of which I mainly attribute the cure. The cupping and blistering, of course, had their agency in relieving the spinal disease. For a more full elucidation of this class of affections, the reader is referred to Duparcque's work on the uterus, page 189 et. seq.

ART. VI.—*Remarks on Milk-Sickness.* By A. G. PRESTON, M. D., of Middletown, Ia.

In the July number of the Lancet, there is an article from Dr. Crawford, of Fountain Co., Ia., stating that tartar emetici s a certain and never-failing cure in milk-sickness. It would have been proper for the writer to have given the symptoms and pathology of the disease, which he calls milk-sickness, when recommending his new method of treatment. Until this is done, it is hardly to be expected that any judicious practitioner, barely on the ipse dixit of one man, will administer such an article as tart. antimon., in a disease having every symptom of acute gastritis. To convince the Doctor of the importance and propriety of being acquainted with the pathology of the disease before prescribing the remedy, I will refer him to the appearances revealed by dissection in the following case, of the disease in this region called milk-sickness. The patient died after nine days confinement. The examination was made thirteen hours after death, by Dr. G. W. Godwin and myself. The skin was of a brownish yellow color.—*Abdomen.* Omentum majus in first stage of inflammation; gall-bladder adhered to assending colon, and distended with dark bile, resembling molasses; liver enlarged; peritoneal covering of right lobe inflamed; stomach contained about a pint of dark-colored fluid, resembling coffee grounds; all the lesser curvature, fundus, and pyloric portion inflamed; the mucous membrane very much thickened and softened: it was entirely removed in places, about the middle of the curvature; duodenum inflamed—its mucous membrane was from one to four lines in thickness, and softened through its whole length; pancreas twice as large as natural, two thirds of it, adjacent to the duodenum, softened and broken down easily when touched; spleen enlarged, and very much congested with blood; jejunum and ileum inflamed in various patches, and in every stage from a slight blush to complete softening; mucous membrane of transverse arch and descending colon inflamed; mesentery highly congested and the glands enlarged; kidneys enlarged and softened, cut surfaces bloody; urinary bladder distended, its mucous membrane softened.

Thorax.—Inferior lobe of left lung completely solidified, and sunk in water; emphysema under the pleura pulmonalis of the superior

lobe; right lung—inferior lobe nearly solidified, middle lobe healthy; posterior portion of superior lobe, considerably congested, with some very dark spots on it; bronchial tubes, filled with frothy mucus; their mucus membrane was not examined minutely; pericardium contained very little fluid—about three pints of it was vascular, showing marks of recent inflammation; heart empty, and a little larger than natural.

I don't wish to be understood, in what is said above, to doubt the success of Dr. C's treatment of what he calls milk-sickness, but only to show, that the disease he has reference to, must be different in its character from the milk-sickness of this section of country, or our present views of the action of tart. ant. must be erroneous. Not believing, as a general thing, in *specifics*, and being opposed to prescribing for *names*, I may be allowed to add, that this universally successful *tartar treatment* reminds me of the routine treatment adopted by the *milk-sick Doctors* here, consisting of calomel, oil, and brandy, which they say is as successful as the *tartar* can be: for they never lose a case, if sent for in *time*. As Dr. C. will have no opportunities of making post-mortem examinations, in his own practice, will he be so good as to obtain permission to make a few dissections of individuals who die of this disease in the hands of some less successful practitioner—so that, when he publishes his "*speculations*" on milk-sickness, he may be able to give us the pathology of the disease as it occurs in his part of the country.

REVIEW.

(CONCLUDED FROM PAGE 224.)

ART. VI.—*Remarks on a Pamphlet, entitled* "PHYSIOLOGY VINDICATED *in a Critique on Liebig's Animal Chemistry.* By CHARLES CALDWELL, M. D., Jeffersonville, Ia, 1843." 8vo. pp. 95. By ROBERT PETER, M. D., Professor of Chemistry and Pharmacy in Transylvania University.

To exemplify still farther the facts, arguments, and manner of Dr. Caldwell, I will transcribe another portion of his "critique":

"To render the substance of our views of the *cooling* power of the human body the more familiar, and their *truth* the more easily tested, we propose the following simple experiment, which may be made by any one.

"Take a large tubful of water, heated to the temperature of 120° of Fahrenheit. Immerse your feet and legs in it, and the sense of burning produced by it will be painful to you. Allow your limbs to be still for a few minutes, and the burning will cease. Remove them to another place in the water, several inches distant, and the burning will be reproduced. Hold them again motionless, and again you will be freed from pain. And thus may the burning be alternately renewed and abated, until the temperature of the water shall be so reduced, as to be near the temperature of your own system—say that of 100°, or two or three degrees higher; for the temperature of your extremities suffers but a very slight change.

"Of these alternations of pain and relief, the reason is plain. Your limbs, without becoming heated themselves, as if they were dead matter, *cool* the water in immediate contact with them, until it ceases to burn. Nor is this all. They also cool it for some distance around them. In proof of this, make another experiment.

"When you first introduce your limbs into the water, at the temperature of 120°, introduce also a thermometer, and bring the bulb of it in contact with your skin. In that case, sixeighths of the bulb will be still in immediate contact with the water.

"Notwithstanding this, if, as soon as the water shall cease to burn you, the thermometer be examined, it will be found to stand but a few degrees above blood heat. Why? Because, we repeat, the leg has cooled the water to some distance around it. To be still further convinced of this, place the thermometer in the water, at the distance of six or eight inches from your limb, and the mercury will again rise.

Once more:—"Let another interesting experiment be tried, which will be found to eventuate to the same effect.

"Immerse in the same tubful of water, heated to 120°, two lower extremities of the same size—one of them alive and sound, and the other dead—let them be fifteen or eighteen inches distance from each other. In twenty minutes after immersion, apply your thermometer, under the water, alternately to each; and you will find the difference in their temperatures to amount to eight or ten degrees or probably more. The dead limb will be near the water in temperature, and the living one many degrees below it. Of this result the cause is the same—the control of living matter on caloric, even to the reduction of it to a state of latency.

"To the enlightened and scientific reader we need hardly observe, that all the facts we have just laid before him, are in plain and positive contradiction of Professor Liebig's hypothesis, and of every other *chemical* hypothesis, respecting the production of *vital* temperature."—*Phys. Vind, pp.* 51, 52.

Need we tell the reader, these experiments are, in sum and substance, transcribed from the works of John Hunter, with the substitution merely of one member of the body for another, and the addition of some rich verbiage? If he will refer to the edition of Hunter's Surgical Lectures, published in Philadelphia in 1839, by Haswell, Barrington and Haswell, on pages 81, 82, he will find them; and if he will examine the notes, which are appended to the text, he will see explained the source of the error of the conclusions drawn from them by their author, and enlarged and improved by Professor Caldwell.

In the day of John Hunter the error was excusable, because of the more imperfect state of physical science; but in the present condition of knowledge, a candidate for medical honors would not be worthy of his diploma, if he could not see the impropriety of these conclusions. In relation to our critic, therefore, the only question to be decided is, whether he is culpable of ignorance or wilful perversion.

In answer to the Professor's argument, I will propose to *him* some experiments, which are not however to be found in Hunter's writings.

Take your tubful of hot water. Immerse in it a large thermometer; marking first the height of the mercury; allow it to remain immersed, *but at rest*, for one minute;—observe, then, how much the column has risen. Now move it about forcibly in the water; immersed to the same depth, for the space of another minute; and if the mercury does not expand greatly more, in equal times, while the instrument is in motion than while at rest, I will not only believe in nature's horror of a vacuum, but in all the dogmas that have ever been propounded.

The simple truth is, that hot fluids part with their heat more rapidly when they impinge, in a current on the body to be heated, than they do when at rest;—and the true reason why the water felt hotter, to the limbs immersed in it, when it was agitated than when it was in a state of rest, was, that it *gave them more heat in a given time.*

But the Doctor says "the leg has *cooled the water to some distance around it!!*" Shade of Rumford! Can it be believed that a learned professor, in the middle of the nineteenth century, should know so little of the currents which exist in heating and cooling fluids, or hydrostatics, as to suppose, that a hollow column of cold water, extending to the distance of some inches, could forget its specific gravity so far, as to stand up, and maintain its place around the leg, although surrounded on all sides by hotter, and specifically lighter water!

If this is true, the wonderful *vital* principle—the mysterious *constitutional instinct*—not only masters and destroys chemical and physical forces within the body; but its power is *even extended to some inches beyond it!!* We leave the doctor to decide whether this proves too much, or nothing at all, or both.

The living member *does* cool the water, however, and much more rapidly than is in proportion to its rise of temperature. But the particles of water, which lose their heat by contact with the leg, becoming more contracted and therefore heavier, by cooling, immediately fall in a current to the bottom of the fluid, giving place to other and warmer particles. A process which continues as long as the cooling takes place, and without which it would not be easy either to heat or cool water.

In order that he may understand how the members may cool the water, without being themselves heated in a proportionate degree; or how a dead limb is heated, under these circumstances, more than a living one, I will propose to the professor other interesting experiments;—which, if he is desirous of finding truth, he will perform:—

Take a tin tube, closed at one end—say a foot long and a couple of inches in diameter—fill it with water at 98 deg, and place a thermometer in it. Take also another similar tube and thermometer, but let the open end of the tube be passed, with a tight joint, into the bottom of a tin vessel of the capacity of a gallon, so that they will form one continuous vessel, filled entirely with water at 98 deg. Now immerse both tubes in the tub full of hot water, to an equal depth, say eight inches; and observe the thermometer and you will witness the wonderful fact, that the temperature of the water in the unattached tube will rise rapidly, while but a comparatively slight effect will be produced in the tube whose contents are in communication with the gallon of water above it.

What does this prove? That vessels of *a peculiar form exert a control over caloric*, so as to destroy it, "*even to reduce it to a state of latency?*" Or, that the heat given to the water in the attached tube is equally diffused, throughout the whole gallon of water with which it is joined, *by the circulation* which is set up in the fluid? Dr. Caldwell may take which solution he pleases; but the *fact* is, that it proves as much as the experiment of John Hunter, with the dead and living member; viz, that the *circulation* conveys away and distributes the caloric.

The *circulation*, which is operative in the tubulated vessel, is the same that has been adverted to above, as the cause of the rapid diffusion of heat in liquids; whilst the circulation present in the living member and absent in the dead one, is that of the blood; which constantly passing into and out of the living limb, distributes the caloric, which it may receive, from the hot water, throughout the whole extent of the body.

It has been one of the labors of the life of Dr. Caldwell to oppose the application of chemical or physical facts and knowledge to the elucidation of the vital phenomena. His *logic*, in treating of this subject, as exhibited throughout the present pamphlet, may be exemplified in few words. It is as follows—1st. The *vital* force is *superior* to all other forces; 2nd. It consequently *destroys* all other forces in the *living* body; 3rd. Therefore, it is high treason to "*vital physiology*" to attribute to those forces *any agency* in the production of *vital* phenomena! Hereafter, however, he ought not only to apply himself diligently to the acquisition of chemical and physical knowledge, but also to recommend it to all who would understand or improve physiology. The foregoing experiments and facts must convince him, that although there is a hidden and powerful force called *vitality*, yet other forces are likely to complicate its actions; and we must thoroughly

understand these other forces before we can give to it its just extent of power and action. That this peculiar force (the *vital force*) is fully appreciated by Professor Liebig, is shown by the passages already quoted and may be more fully seen on reference to his Animal Chemistry, pp. 198, 199, etc, to which we commend the reader.

In the labored attempt of Professor Caldwell to disprove the doctrine of animal heat, sustained by the Chemist of Giessen, as well as by the majority of those whom he terms the "*would be physiologists*" of the present day, he resorts to various expedients, and inferences, which indicate his zeal in his cause rather than his correct knowledge or clear perception of truth. Of these I shall proceed to give a few more examples.

"During the hottest period of hot climates, the heat wasted by the human body, through atmospherical influence, does not amount on an average, to more than 5 deg, perhaps not so much. That quantity, therefore, and no more, must be supplied by the calorific process.

"But during the winters of the frozen north, the heat abstracted from the body of man, by atmospheric agency, amounts, not unfrequently, to from 140 deg. to 150 deg. This is from twenty-eight to thirty times as much as is abstracted under the influence of tropical heat. In such a case, therefore, the calorific process must supply that amount, else the temperature of the body will sink.—*Phys. Vind, p.* 12."

Here the learned critic finds it *convenient* to forget the compensating influence of clothing; and, for the time, to disregard entirely the abundant perspiration and great evaporation of moisture from the human body, in hot climates, which carries off from it in the latent state, a much larger proportion of the heat which is generated in it than in cold climates. Every particle of water, when it evaporates, renders as much heat latent as would have raised nearly to the red heat. He shortly afterward, however, takes occasion to introduce this "*great cooling process of the chemico-medical physiologists,*" in order to accuse Liebig of having neglected it in *his* calculations. But in this he is clearly mistaken; as will be seen by the following extract from the author:—

"If we assume, that the quantity of water vaporized through the skin and lungs in 24 hours amounts to 48oz, (3lbs), then there will remain, after deducting the necessary amount of heat, 144137.7 degrees of heat, which are dissipated by radiation, by heating the expired air, and the excrementitious matter."—*Animal Chemistry, p.* 33.

It cannot fail to be observed, that many of the objections, which are

urged by Dr. Caldwell against the publication of Professor Liebig, are based on his own misapprehension of the design, plan, and character of the work he criticises. Written in a most concise style; the facts being arranged in a series of propositions, briefly stated, each having a relation to its antecedent, and nothing being repeated which has once been sufficiently explained; in order to comprehend the sense of the author in any one paragraph, it is necessary to understand all that has been previously stated and is taken for granted. It may be further stated, that the learned chemist presupposes, in the minds of his readers, a certain amount of scientific facts and training, which, unfortunately, is not always to be found, even among veteran Professors of Physiology.

In the maintenance of the healthy, uniform temperature of the body, in different climates, many compensatory means are employed in the animal economy. In addition to those already adverted to, we find the diminution of the amount of oxygen inspired in hot climates, as a consequence of the rarified and expanded condition of the air breathed, and the relatively greater amount of food consumed in cold climates, affirmed and exemplified by Liebig, and controverted by his logical opposer, who takes up and examines each separately and apart, as though it had been contended that each was the SOLE AND ONLY CAUSE of all the effects produced, and not, as is the fact, that it was *only one of a number of means, all tending to the same end.* We quote his own words:

"Suppose a *cubic foot of air*, at the temperature of 96 deg., which is high tropical heat, contains *three cubic inches of oxygen*, raise a cubic foot of polar air from zero, or even below it, to the same temperature, and we doubt exceedingly whether its oxygen will be so far expanded as to occupy the space of *six cubic inches.* To employ terms of weight, which will represent the matter *with greater accuracy*—admit the oxygen contained in a cubic foot of tropical air to amount to *ten grains*—that contained in an equal volume of polar air, will not, we suspect, amount to *twenty grains.* These terms of weight and measure, we have used, not to express, in *fact*, the precise amount of oxygen in a given quantity of atmospheric air, at different temperatures and in different latitudes, but merely in illustration of the principle we wish to establish. *As we never, moreover, either made the experiments, or positively know that they have been made by others, we offer them in the character of probabilities—but as probabilities strong in their claim on attention and belief.*

"Even admitting, then, that our author's combustion hypothesis of ani-

mal heat is sound in principle, we are confident, we repeat, that the small differences in the amount of oxygen contained in equal volumes of polar, middle latitude, and tropical air, are far from being sufficient to sustain it in *fact.*"—*Phys. Vind.*, p. 16, 17.

Here let the reader remark, in the passages we have taken the liberty to italicise, another striking evidence of the critic's positive and unpardonable want of *scientific information*, or of something worse. Does he not know, that the proportion of oxygen in the atmosphere has been accurately ascertained, both by weight and measure, and that the rate of expansion and contraction of airs and gases, in different temperatures, has been long since established; or does he purposely attempt to mystify, that he may be enabled to mislead?

If he is disposed to make the calculation, so as to ascertain with *accuracy, how much influence* these conditions of the atmosphere *may exert*, in the phenomena of calorification, I will inform him, and in all modern text-books of chemistry, he will find the fact stated, that air and gasses of all kinds expand and contract equably and regularly, at all temperatures, to the amount of about 1-480 of their volume at 32 deg. for every degree of Fahrenheit. If he enters into the examination, he will not find the amount of the changes of volume of air to exceed, under the circumstances proposed, one fourth of the volume at 32 deg.; yet he cannot fail to see, even in this proportion, an important *auxiliary* to the combustion theory.

The human body, in adapting itself to different temperatures, is also somewhat dependent on the nature and quantity of its food. This is one of the points on which Professor Liebig dwells; and although its enunciation is not original with him, he has illustrated and applied it more forcibly, perhaps, than any previous writer. To this Dr. Caldwell strongly objects, in the following passage.

"It is not true, that men *generate vital heat*, and *sustain wintry cold*, in proportion to the amount of oxygen they breathe, and the quantity of carbon and hydrogen they swallow. They do *both* much more in proportion to *usage* and *habit*. And, in the production and maintenance of them, no chemical process has, or will be alledged to have, a shadow of agency. They are essentially and exclusively *vital* attributes. To refer them to chemistry, therefore, would be a rank misappliance, not to say prostitution of science."—*Phys. Vind.* p. 19.

He makes many statements, which he supposes are entirely at variance with the fact that the nature and quantity of the food may affect the heat-

producing powers of the body, and lengthened arguments to prove its fallacy. But it seems, that, after he had committed them to paper, to the discomfiture, as he supposed, of Liebig and all his followers, fearing that he had been too severe, or wishing to console his defeated opponents, he adds, in the preface and in a postscript, the following acknowledgement, that all which he had previously said must be understood *only in a "Pickwickian sense."*

"I do not positively *assert* that oxygen, carbon, nitrogen, and hydrogen, have no concern in the production of vital temperature, or in the formation of bile or urine, because I do not positively *know* that they have none; and my assertion never transcends my knowledge. But I do assert that these gases do not act on each other in the living system of man, and other forms of vital organized matter, precisely as they do in the laboratory of the chemist."—*Phys. Vind.*, p. 11.

* * * "Through the respiratory organ the system receives a large amount of oxygen, which is accounted, by the party, a prime agent in the production of vital heat. Nor do we deny that agency—or rather, the *instrumentality* of oxygen in that process. We only deny its *chemical* instrumentality. We deny that it acts in warming our bodies precisely as it does in warming our stoves. It operates under vital control—not under mere chemical affinity.

"In the production of animal and *vegetable* temperature, the vital power must employ means; and we are willing to admit that these means, or at least some of them, *may be*, and probably *are*, oxygen, carbon, and hydrogen. But they are employed, we say, as *vital, not chemical*, instruments or means of action.* The vital force has the control of them as entirely, as chemical attraction has of sulphur and oxygen in the formation of sulphuric acid, or of oxygen and hydrogen in the formation of water. Nor has genuine chemistry any more agency in the functions and economy of living organized beings, of any description, than vitality has in the processes of making gunpowder and calomel."—*Phys. Vind.* p. 91.

Really, we did not expect this from the Doctor!—we thought that he was in earnest; and we have often heard him quote

——"What 's in a name!
A rose by any other name would smell as sweet!"

But the statements and arguments in the body of the pamphlet, will

* Liebig contends for no more!—R. P.

justify me in giving a few additional facts, to those mentioned by Liebig, illustrative of the influence of the food on the heat-producing power of the animal body.

In the Narrative of the Second Voyage of Capt. Sir John Ross, in search of a north-west passage, (Am. ed. 1835. pp. 115) we find the following statement as the result of his extensive experience on the point in question:

* * * "But this at least seems certain, that men of the largest appetites and most perfect digestion produce the most heat; as feeble stomachs, whether dyspeptic, as it is termed, or merely unable to receive much food, are subject to suffer the most from cold; never generating heat enough to resist its impressions.

"Physicians must determine whether the strong digestive power, and the heat-generating one are but parts of one original constitution, or whether the large use of food is not a cause of the production of heat; but what follows is at least practically true, as the reason seems abundantly plain. He who is well fed, resists cold better than the man who is stinted, while the starvation from cold follows but too soon a starvation in food. This, doubtless, explains in a great measure, the resisting powers of the natives of these foreign climates: their consumption of food, it is familiar, being enormous, and often incredible. But it is also a valuable remark for those who may hereafter be situated like ourselves; since if these views are correct, as I believe them, both from experience and reasoning to be, it shows that no effort should be spared to ensure an ample supply of the best food."

"Our system, whether in the navy or merchants service, and in whatever parts of the world, be it the icy seas or the tropical ocean, has been as fixed as it is uniform; and perhaps I ought not to blame those who have made regulations, when they did not know, and could not therefore take into consideration the grounds on which their orders ought to have been regulated. If the allowance of the food for seamen, under all differences of climate, or labor of service, technically speaking, has been fixed and uniform, implying circumstances and involving consequences respecting which I dare not here take room to speak, so in the case immediately before me, have we been accustomed to fix the allowance of food, to restrict it, I may fairly say, through an experience founded on far other circumstances, or under a system calculated from very different data."

"The conclusion therefore in which I wish to rest, willingly as I

would have extended these remarks, and perhaps then extending them so as to produce the greater conviction, is this; namely, that in every expedition or voyage to a polar region, at least if a winter residence is contemplated, the quantity of food should be increased, be that as convenient as it may. It would be very desirable indeed if the men could acquire the taste for Greenland food; since *all experience has shown that the large use of oil and fat meats is the true secret of life in these foreign countries, and that the natives cannot subsist without it; becoming diseased, and dying under a more meagre diet.*"

Dr. Caldwell says that this is all false; but who are we to believe—a theoretical physiologist who has an hypothesis to sustain, or those who have been to the polar regions?

These facts are in accordance with the experience of every one. Every farmer has observed that it requires more food to keep, in what is termed a *good condition*, a cow or other animal which is exposed to the full severity of the winter's cold, than one that is sheltered from the storms;—and every one knows that the appetite for solid food is much less in warm weather than it is in cold. Yet all this, and the general fact that the inhabitants of cold climates require more food than those of hot; as well as the statement that the animals of prey of the polar regions are more voracious than those of the torrid zone; are denied by our critic in the most unqualified manner.

The animals of high latitudes are endowed with special protectives, in the form of coverings of fur, blubber, &c., which, in *some measure*, preserve the heat of their bodies; yet they are undoubtedly voracious to an unusual degree, in consequence of the increased necessity for food to sustain their temperature. The beasts of prey of the torrid zone, as is objected by Dr. Caldwell, gorge themselves with food when they can obtain it, it is true;—but another element must be taken in the comparative estimation; which is, *the length of time which elapses between their several meals*;—when this is considered, we suspect that none of them will be found to equal in voracity the *Glutton*, which is comparatively a small animal, inhabiting the arctic regions. According to Mr. Klein, quoted by Smellie, one of these animals brought from Siberia to Dresden, eat *every day* thirty pounds of flesh without being satisfied! We can safely conclude that this *old story* is, like others of an equal date which find favor with our critic, a little exaggerated, yet all authors agree in the general fact of the great voracity of this animal.

To the same neglect of that important element of the calculation, *the time during which a single meal will supply the wants of an animal*—do we owe the objection first urged by Virey, of Paris, and now reproduced, without acknowledgment by Professor Caldwell; namely, that the Anaconda- and some other of the serpent tribe, &c., are of "prodigious voracity," when they can obtain food, yet their respiration is *comparatively limited*, and their temperature *proportionately low*. But the Professor himself gives the answer in his next paragraph.

* * * "They are capable of living *months, we know*, (and we are assured on authority we know not how to discredit, or even question, that the term may be extended to *years*,) in a state of entire abstinence from food, and of still maintaining their *ordinary temperature*. Nor are they materially reduced in weight by the privation."—*Phys. Vind. p.* 35.

He makes this passage the subject of a taunt, but it proves nothing but that, in his own language, when the snake takes his *fuel* into his *corporeal store*, he lays in enough to keep up his small fire for a considerable length of time.

We cannot follow him in all that he says in relation to the agency of the food; it would not be profitable so to do; for it is evident to every one, that he relies on very uncertain data, and has not comprehended the sense of the propositions of the author he criticises.

All physiologists admit that birds maintain a higher temperature than any other animals; and they also see in them a proportionately greater extent of the respiratory function. To these our critic refuses to give credence; and his peculiar logical astuteness is exhibited in his argument.

"To the lungs of birds are attached numerous tubes, which convey the air they inspire into various parts of their bodies. In some birds this diffusion of air is very extensive, being pushed, not merely into the muscles and other soft parts, but into the bones and some of the feathers, especially the large wing feathers."—*Phys. Vind. p.* 36.

Physiologists say that the air thus conveyed and renewed, throughout the body of birds, serves in some measure, to aerate the blood.

Dr. Caldwell affirms, on the contrary, that "these tubes form no part of the *true respiratory apparatus*" of these animals.

But, add the *would-be-physiologists*, the air thus conveyed, parts with its oxygen and receives carbonic acid in exchange, just as it does in the lungs proper.

Whether that is true or false, replies Professor Caldwell, which I will neither affirm nor deny, for I do not know,—*I say* that it is not *genuine respiration*:—and, *therefore*, as the lungs proper of birds are proportionately smaller than those of quadrupeds, they afford an example of a discrepancy between the temperature and the extent of the respiratory process!

We leave the reader to judge, both of the cogency of the argument and of the accuracy of the physiological knowledge of the critic. But there is something yet more glaring to be exhibited.

Dr. Caldwell objects to the theory of animal heat in question, that "the vegetable kingdom abounds in facts in direct opposition to it."—Relying on some experiments of John Hunter and others, which prove that growing trees are not, in the heat of summer and in the cold of winter, of the same temperature, internally, as the surrounding atmosphere; he reiterates the old hypothesis long since exploded, of an independent heat-producing power in all vegetables. He forgets that wood is an imperfect conductor of heat, and that, therefore, caloric requires some time to penetrate it—that the constant evaporation from the leaves of the living tree would tend to keep down its temperature during the summer—and that its fluids are derived from the soil some distance below the surface, and are consequently, always at something like a *mean temperature, i. e.* colder in summer and warmer in winter than the air. He forgets, neglects, or is ignorant of all these facts—and asserting that vegetables maintain a peculiar temperature by an independent heat-producing power of vitality, adduces this assertion as at once an evidence of the fallacy of Leibig's theory, and a proof of his inconsistency!

On this subject I would commend to him the study of modern works of Vegetable Physiology, and more particularly the admirable "*Physiologie Vegetale*" of the late De Candolle. Lest, however, the work may not exist in his library, I will transcribe a few passages on this point.

After noticing the experiments of Hunter and others, De Candolle adds:—"Pictet and Maurice* repeated these observations at Geneva during several years, and obtained the same results; they added to them an important observation, because it leads to the explanation of the fact—they placed several thermometers, some in the trunk of a large Chesnut tree, others at divers depths in the earth, and they saw that the variations of the thermometer which indicated the temperature of the interior of the trunk, corresponded sensibly with those of a thermometer placed at

* Biblioth. Britann. premiere annee.

four feet in the earth, that is to say, at the medium depth of the roots of the tree. M. Schubler and Neuffer have more recently obtained analogous results*," &c. &c.—*pp.* 879–80.

De Candolle proceeds to detail the facts already stated in relation to the imperfect conducting power of wood, and the mean temperature of the fluids taken up by the roots of trees, and adds:

"It ought then naturally to result from this double effect, that the temperature of the interior of the trunks ought to be analogous to that of the soil in which their roots are plunged, that is to say, warmer than the air in winter, and colder in summer—and that in order to explain these facts, it is *not necessary to admit in vegetables a calorific faculty analogous to that of warm-blooded animals.*"—*p.* 882.

Equal unfairness, or want of knowledge, must be observed in another portion of the pamphlet of Dr. Caldwell—where he attempts to show that the supposed heat-producing power is weaker in young, than in mature trees.

* * * "All young animals are defective in their *calorific power.*—Of young vegetables the same may be affirmed. It is the young and tender plant, leaf, twig and fruit, that are most readily and certainly destroyed by an untimely frost. There exists in Louisville at the present time, a striking example to this effect.

"There stands in the court-yard of a gentleman, two saplings of a tree of the South, commonly called the "Pride of China," (its Botanical name not recollected.) They were brought from their native climate and planted here when very small and young. For several years after their transportation, it was necessary to protect them from the severity of our winters, by a covering of straw, or some other heat-retaining article. But now, having attained the sapling size, and being somewhat accustomed to our climate, they pass through the winter unhurt, *without a covering.*"—*Phys. Vind. p.* 29.

Here we will again employ the language of De Candolle, to expose the error of the Doctor, because it gives concisely the facts in relation to the case in hand.

"Young trees are more easily attacked by frost or drought, because, that among other causes, their roots are less deep in the soil, and the number of their layers of bark being less, defend them more feebly against external heat and cold."—*Physiologie Vegetale, p.* 883–4.

* Bull. Sc. Nat. 20, p. 261,

In this connection, we will propose an enigma to the venerable critic. Why is it that the new branches of an old and established grape-vine, of a foreign variety, will be killed by the frost, if not protected by some artificial covering, during the *first* and sometimes the *second* winter after their growth, but are hardy forever afterwards? These branches are parts of an *old vegetable*, and therefore ought, according to your theory, to have attained their full *calorific power*. Gardeners, and vegetable physiologists see in the annual increase of the layers of bark on the surface of the branches, a sufficient solution of this phenomena. But how will you account for it?

In continuation of his objections, drawn from *his own peculiar* vegetable physiology, we find the following passages.

"In the Isle of Bourbon, when the temperature of the atmosphere was but 80 deg. of Fahrenheit, Hubert found the temperature of the flowers of the *Arum Cordefolium*, to be 134 deg. But when sanctioned by the authority of Hubert, we can neither disbelieve not even question the statement. And it is well known to Botanists, that the temperature of the blossoms of sundry plants rises to 119 or 120 deg.—the temperature of the atmosphere at the time being that of summer in temperate climates. In such cases the blossoms generally grow in clusters."

"How will our author reconcile these phenomenas with his hypothesis of vital temperature? Does the combustion of carbon or hydrogen or both take place in these flowers? If so, where, and what are the evidences of the fact? Do the flowers referred to *absorb* oxygen, that by its chemical union with carbon and hydrogen, it may awaken combustion, form carbonic acid and water, and produce heat? Or do they (as our author asserts that all vegetables *necessarily* do,) continue to *discharge* oxygen? For both processes at once, we think, they cannot perform. In a special manner how can these facts just cited be made to harmonize with the following extract from "Animal Chemistry?" And how can the two paragraphs about to be extracted, be made to harmonize with each other? (See p. 2.)

"The observations of vegetable physiologists, and the researches of chemists have mutually contributed to establish the fact, that the growth and developement* of vegetables depend on the *elimination* of oxygen, which is *separated from the other component parts of their nourishment.*

"In contradistinction to vegetable life, the life of animals exhibits itself in the constant *absorption* of the oxygen of the air, and its combination with certain component parts of the animal body."

"If we understand these paragraphs correctly, they are, as will presently be demonstrated, entirely out of concord with each other, not to employ a stronger term, we pronounce them mutually contradictory."—*Phys. Vind. pp.* 38–9.

A sufficient escape from this dilemma of Dr. Caldwell is reserved by Liebig, and it is strange "not to employ a stronger term," that it should have escaped the attention of our critic. On page 17 of "Animal Chemistry," we find it stated, (as we have already quoted.)

"All living creatures *whose existence depends on the absorption of oxygen*, possess within them a source of heat, &c.

"This truth applies to all animals, *and extends, besides*, to the germination of seeds, to *the flowering of plants*, and to the maturation of fruits."

Liebig never countenanced the exploded hypothesis that vegetables in general possessed an independent calorific power, and it is evident that he was familiar with the exceptional fact, as well as the cause, of the temporary production of heat during their flowering.

The phenomena attending the production of heat during the flowering of plants, the maturation of their fruits, and the germination of their seeds, are now universally known to be the reverse of those which are present during their *general growth and development*. Their *general* action is to decompose carbonic acid and water, and to *eliminate* oxygen, although they only do so when exposed to light; but in these particular processes, in which heat is produced, oxygen is *absorbed* from the atmosphere, and it combines with carbon and hydrogen to produce carbonic acid and water, and evolve heat just as in animal respiration. Let us again refer to De Candolle, whose work is considered one of the best text-books of vegetable physiology.

"The petals, in common with all the parts of the flowers which are not green, are endowed with the faculty of deteriorating the atmospheric air, these parts yield a portion of their own carbon, which, uniting with the oxygen of the air, forms a volume of carbonic acid nearly equal to that of the oxygen.

* * * "M. Theod. de Saussure,* was the first to ascertain this fact with exactitude,—he placed the flowers in a recipient of atmospheric air, closed by mercury, of which they did not occupy more than one 200th part, and measured the quantity of acid produced, comparing it with the volume of the flower employed taken as unity."

* Traite de la Vegetation, 1 p. 178.

The result was that they absorbed from three and a half to eighteen and a half times their volume of oxygen. He continues:

"But of all the plants, that in which the destruction of oxygen by the floral parts is the most pronounced, is the *Arum Vulgare.* Its spathe destroyed four times its volume of oxygen,—its spadix thirty times its volume, and in the part which bears the sexual organs, as much as thirty-two times its volume.

"This effect is evidently allied with another fact presented by the same plant,—namely, the heat which its spadix emits at the epoch, which corresponds with that of the destruction of oxygen," &c.—*Physiologie Vegetale. pp.* 549-50-1.

Other objections to Liebig's views of the sources of Animal heat, by which he affirms they are "irretrievably overthrown," are derived by Dr. Caldwell from the following facts:—namely, that in a paralized limb, or when the nerve is cut, the circulation proceeds as usual, and yet the temperature sinks; and that in the bodies of consumptive patients, whose lungs are nearly destroyed, and which do not contain an ounce of fat to furnish carbon, "when the amouut of their food and drink is exceedingly small and none of it oily," the temperature kept up to high fever heat.

These, like almost the whole of his objections, are susceptible of most easy removal when the subject is understood. They indeed furnish corroborative proof of the doctrine which is promulgated in the work of Professor Liebig, which they are, in every respect, accordant.

The production of heat in the animal body is dependent on nutrition; in this respect—that unless certain particles are given to be deposited in the tissues, they cannot be seperated from them in order to combine with the oxygen of the arterial blood to produce heat. It is also clearly dependent on the subsequent separation of these particles from the tissues, which takes place during vital actions,—*for it is not contended that the oxygen can combine with them while they are under the complete control of the vital force.*

In the paralized limb, therefore, nutrition is lessened, and the seperation of particles, or the metamorphosis of the tissues, is also lessened—the whole sum of the vital actions is diminished, and *consequently,* although oxygen may be present in the arterial blood sent to the member, the amount of the effete or separated matter which combines with it, is not so great as in the normal state, and, therefore, cannot maintain the usual temperature.

On the other hand, it may be supposed that such a general diminution of the vital force exists in the body of the consumptive patient, that but little resistance is offered to the action of oxygen on the tissues, and the wasting, as is well known, is thefore very rapid. The abundance of Uric acid in the urine voided after a febrile exacerbation strengthens this view; for had there been a superabundance of oxygen, in relation to the combustible matters which combine with it in, the body, this would have been replaced by urea, which is a more highly oxydized product.

Less oxygen is indeed taken into the lungs, than in the normal state, but more is yet inhaled to them and furnished to the skin, than is sufficient to account for the phenomena. For in the healthy state of the respiratory organs, *a great deal more air is habitually taken in than is consumed;* and the relative proportion of the oxygen which is exchanged for carbonic acid, in every act of respiration, is *exceedingly small.* By accurate experiments it has been ascertained that only one-third of the oxygen is consumed, in air which has been once respired, in the healthy state of the organs.—Doubtless that proportion would be found much greater in the expired air of the consumptive patient. Moreover, it may be stated for the information of our critic, that the healthy lungs retain in their cells, after ordinary breathing, eight times as much air as is renewed in each inspiration.

Another fact which bears on this question is, that it is not invariably true that in all consumptive patients whose lungs are very much disorganized, the animal temperature is kept above the healthy point. Andral in his Medical Clinic (Diseases of the chest) makes the following remarks.

"It appeared to me a matter of curiosity, to ascertain whether in phthisical patients also the temperature was less raised than in other persons. I accordingly found that in a considerable number of these patients, Reuumur's thermometer placed under the axilla, did not rise above 29 deg. (equal to 97 deg. Fahrenheit,) 'in some it did not go beyond 28 deg.' (95 deg. Fahrenheit.) 'This temperature, lower than that of the natural state, was moreover observed only in persons whose lungs contained a great many caverns, and were indurated in a great part of their extent,' (Amer. Ed. p. 255.) He adds, however, that in other similiar cases, he has observed the thermometer to rise to 'between 31 and 32 deg. as in the healthy state.'

Here we cannot avoid adverting to some of the *facts,* we might perhaps more properly say *discoveries,* of Dr. Caldwell—by means of which he attempts to prove the chemists in error, and to annihilate the doctrines

of Liebig. One of these is the probable discovery of a new constituent of the atmosphere, and the formation of a new theory of respiration—announced by him in the following paragraph.

"Respiration is the inlet of the vital principle into the bodies of animated beings. It is therefore the only function that is *truly and primarily vital.* The circulation of the blood, and the functions of the brain and nerves, are vital only relatively, and in a secondary degree. Admitting it to be true, then, that animals possess a temperature, proportioned in height to the extent of their respiration, the fact is to be attributed, not to the superior amount of oxygen, but to that of the *vital principle* received by them in the process. This position, though not susceptible of positive proof, might be rendered highly probable, could we dwell on the subject." —*Phys. Vind., p.* 92.

Could any one possibly read such a statement with a serious face? But we find another *new discovery* of the Doctor on page 80:

"There exist two small insects, the *terebellum saxosum* and the *terebellum marmoreum*, the former of which, as entomologists of the highest order assure us, subsists on *argillaceous stones*, and those formed of other sorts of primitive earth, and the latter on *marble.* Certain it is, that the parent insect penetrates into the stones referred to, and there deposits her eggs. And it is *held equally certain*, that, when she comes out again, she leaves behind her, for her young, no aliment, either vegetable or animal. She supplies them with a small amount of *stone* and *marble dust*, which she formed by cutting her way inward, with her gimlet-like proboscis. On *that, therefore*, when hatched, they are *compelled to subsist*, or perish.

"What authority, then, has Professor Liebig to include, as he does, these insects in his sweeping declaration, that the food of *all* animals, in *all* circumstances, consists of parts of organisms?"—*Phys. Vind.*

This is not all. Dr. Caldwell seems also to have discovered that the larva of the "*septemdecennial locust,*" lives on nothing but pure *mineral* substances during the whole of its *seventeen years sojourn* in the soil! The Doctor has been praised for his extensive knowledge of natural history, displayed in this pamphlet. He taunts Liebig with ignorance of zoology; and these insectile *discoveries* of his, throw even professed entomologists into the shade!!

I have examined the works of Linnæus, Cuvier and Latreille, Kirby and Spence, and others, and find no *insect*, bearing the name of *terebellum.* If these curious insects, with the singular taste for hard rocks, are *new dis-*

coveries, as we suspect they *must be*, we would recommend to the Professor to give them another generic name—that of *terebellum*, having been already appropriated to a genus of *univalve shell-fish*, the species of which are as innocent of *boring* as the Doctor is of chemical physiology.

In searching through the several entomological works, in the large library of the medical department of Transylvania University, for light on this interesting subject, I found that a very old German author, named Lesser, had, in a work, which had been translated into the French, in 1745, by M. P. Lyonnet, entitled "Theologie des Insects," (the Theology of Insects,) spoken of some which had fed on rock and earths, or rather, which he *supposed* fed on them, *because they pierced them*. His translator, however, thought there was no ground for the belief; and, on reference to the "Introduction to Entomology," by the celebrated English entomologists, Kirby and Spence, I found the following passage, which places the *discovery* of the learned critic in its true light.

"I have said that insects, like other animals, draw their subsistence from the vegetable or animal kingdoms. But I ought not to omit noticing that some authors have conceived that several species feed upon mineral substances. Not to dwell upon Barchewitz's idle tale of East Indian ants, which eat iron, or on the stone-eating caterpillars, recorded in the memoirs of the French Academy,* which are now known to erode the walls on which they are found, for the purpose of forming their cocoon; Reaumur and Swammerdam have both stated the food of the larvæ of the *Ephemeræ* to be earth, that being the only substance ever found in their stomach and intestines, which are filled with it. This supposition, which, if correct, renders invalid the definition by which Mirbel and my friend Dr. Alderson, of Hull, long before him, proposed to distinguish the animal and vegetable kingdom, is certainly not inadmissible; for, though we might not be inclined to give much weight to Father Paulian's history of a flint-eater, who digested flints and stones, the testimony of Humboldt seems to prove that the human race is capable of drawing nutriment from earth, which, if the odorous Ottomaques can digest and assimilate, may afford support to the larvæ of the Ephemeræ. Yet, after all, it is perhaps *more probable* that these insects feed on the *decaying vegetable matter*, intermixed with the earth in which they reside, from which, after being swallowed, it is extracted by the action of the stomach—like the sand, that, from being

* x. 458.—Can these be the Doctor's *terebelli*?

found in a similar situation, Boralli erroneously supposed to be the food of many *Testacea*, though in fact an extraneous substance."—*pp.* 389—90.

Another *discovery* of Professor Caldwell, we find in his pamphlet on page 41:

"The living seeds of vegetables—say of wheat, rye, barley, and flax—have the power of maintaining, each its own specific temperature. Take, for example, two equal quantities, (let the measure be a bushel,) of the same sort of wheat, both of them fresh and living. Boil one of them so as to destroy its vitality, and do no injury to the other. The weather being cold, put the two parcels into two casks precisely alike in size, shape, and material; expose them to the same temperature, and introduce into them two thermometers of the same sensibility. Of this experiment, if correctly performed, the result will be, that the thermometer, surrounded by the dead wheat, will indicate the temperature of the atmosphere at the time, whilst that in the midst of the living wheat, will express a higher one."—*Phys. Vind.* [The Doctor does not say in what length of *time*.]

That *dry* seeds, which were in a complete *state of rest*, and not in a *growing*, or *germinating* condition, have a *temperature-preserving power*, is undoubtedly *new*. But it is to be questioned whether, in the above experiment, the *superior heat-conducting* power of the wet wheat may not fully account for the difference supposed to be observed. When seeds are *germinating*, oxygen is elaborated, carbonic acid evolved, and heat is generated, as in the malting process; but, that perfectly *dry* grain has any temperature-preserving power, independent of its imperfect conducting power, must be proven by more accurate experiments than those above detailed.

The *living* egg is supposed to be more difficult to congeal by cold than the *dead* one; but this only proves a superior resistance to *solidification*, and by no means indicates that *reduction of temperature* is also resisted.

While dwelling on the *novelties* and *curiosities* of the pamphlet before us, I will transcribe another specimen of his improved *logic*:

"Again: if, according to our assurance from the same authority, it be a fact, that 'the more warmly we are clothed, the less urgent becomes our appetite for food,' it follows, of course, that, in case our *clothing be sufficiently warm*, our appetite for food will be *entirely extinguished*. This is no high-drawn carricature. Nor is it intended to be so. It is, we say, a fair exposition of our author's wildness and extravagance in error."—*Phys. Vind., p.* 20.

It must be evident that Liebig's assertion, that clothing is an *equivalent* for a *certain amount of food*, no more justifies the inference that it might be made to *supersede all food*, than the recent improvements in the economy of stoves, for heating our houses, should lead us to the belief that one may be made which will give heat without consuming any wood.

In the same category must we notice some other *peculiar* facts and arguments, urged against the admission of chemical action within the sphere of the vital phenomena. These may be found on page 55 of Physiology Vindicated; and are, in substance, that chemical action cannot go on, if any other force is present and operative, and that the "chemical forces are nullified or deranged by a constant supply of fresh materials"!

If the brewer, he adds in proof, agitates a vat-ful of malt, (wort,) when he sets it to ferment, "*the principles of mechanical motion mingle* and interfere with those of chemistry, and prevent them from producing their legitimate results." But the chemist knows that it would be the *oxygen of the air which would mingle*, in consequence of the agitation, and that the chemical action, so far from being lessened, would be so far increased and accelerated, as to carry the liquid into the acetous fermentation. Mechanical agitation, in fact, aids chemical action in many cases; and the chemist accelerates his process by stirring. In testing, precipitates are thus caused to appear in a few seconds, which, at complete rest, would have required hours.

The process of crystallization, says the Doctor, is *prevented*, or rendered imperfect and irregular, by agitation. But the chemist believes, that, although rendered irregular and imperfect in respect to the *size* of the crystals, their deposition is actually accelerated by mechanical means.

To satisfy himself that the constant supply of fresh materials will *not* nullify or derange the chemical forces, something more is required than the *complicated one*, of the fermentation of beer or wine, which he proposes. We invite him to devote a day to a *very simple* and *strictly chemical* experiment, which will set this point at rest—provided his philosophy is not that of "very great curiosity and very bad eyes."

Let him take equivalent quantities of muriatic acid and solution of carbonate of soda, in separate and convenient vessels, and then let him pour them with care, in a constant and gentle stream, with any degree of agitation he pleases, into a third vessel; and if, at the end of the experiment, he finds any thing else than the definite chemical compound, com-

mon salt, he will have proved to the world that he knows more of chemistry than Davy or Berzelius.

An equal amount of chemical information is shown by the Professor, when he defies the chemist to exhibit a case of the combustion of carbon and the formation of carbonic acid, at a temperature of 98° to 100° Fah., *out of the animal body.* He has forgotten his frequent boast, that he was the first, in this country, to cause the ignition of charcoal by mixing it with nitric acid, to the extreme delight of the late Professor Woodhouse; or else he does not appreciate the fact, that this combustion is nothing but the combination of oxygen with carbon, and that the product is only carbonic acid; and that, although the heat of the combination goes far above 100° Fah., it *commences* below that temperature—the temperature being carried up by the caloric evolved by the first combination. A few facts more may be added. Powdered charcoal, left in a heap in the air, often becomes spontaneously heated, and sometimes ignited. From what cause? The combination of oxygen and the production of carbonic acid, at a temperature below 100° Fah. The same cause operates, and the same effects are produced, in the fermenting manure-pile, the heated mass of moist tan-bark, the drying of paint-oils, the spontaneous combustion of oily cotton, or the malting of grain—in all of which, the combination commences below 98°, and in many is not carried far beyond it.

It is no objection to say that hydrogen is also present in most of these cases, and may aid the process; for the same element is present in the animal body to produce the same effect.

It will be seen, therefore, that the propositions of Professor Liebig are not invalidated by the objections of our critic; and, although those propositions are not stated as *ascertained facts,* and doubtless contain many errors which future discovery must remove, as well as a few, although *very few,* statements that do not accord with our present knowledge; the cogency of the arguments is not diminished by the few flaws which have been really detected in the "Animal Chemistry," and the beneficial influence of the work cannot be prevented.

With these remarks I will conclude my animadversions on the singular pamphlet of Professor Caldwell; having perhaps already extended them too far. There are many parts of it equally illogical and unscientific with those which have been exposed; but the good sense of the reader, who has perused the work of Liebig *understandingly,* will find nothing which presents a serious objection.

If I have been apparently severe in the exposition of the sophistry and misapprehensions of the venerable critic, I humbly plead, in exculpation, that when spurious facts, and *ingenious*, althongh *inconsequent* inductions, tending to retard improvement, are boldly announced by high authority, in the most *confident manner* as well as *polished style*, nothing but the *stern exposition of the truth* can avert the mischief, which, in the minds of many, may be done to the cause.

Physiology is yet, to some extent, under the dominion of an imperfect philosophy: too many *a priori* propositions are received as axioms by her followers, which ought to be submitted to the test of observation and experiment. This task is, to some extent, proposed in the late works of Liebig, who himself leads the way in one important branch of the investigation. When it shall have been fully performed, in the course of time, on correct Baconian principles—according to which no ascertained *truth* can be considered impious or immoral in its tendency—all theory must be submitted to facts, and all reasoning be strictly logical induction or comparison—the science of physiology purified, simplified, and regenerated, will shed redoubled luster on the healing art.

MISCELLANEOUS SELECTIONS AND INTELLIGENCE.

Injurious effects of the excessive use of Tr. Iodine, communicated to the Medical Society of Vienna by Dr. Prshesinsky. — A lady, 40 years of age, was advised to take for excessive corpulency six drops of the Tr. Iodine three times a day. Without informing her physician of it she continued the medicine in increasing doses for eight weeks in succession, taking at last thirty drops three times a day, amounting in the whole to two oz. of the Tincture. The woman had grown much thinner, all molestations of excessive corpulency were gone, and she felt for some weeks quite well. But then large furuncles surrounded with much inflammation appeared on the mammæ and between the scapulæ; at the same time appetite and steep were gone. After the application of warm poultices upon the furuncles, they separated from the skin as hard knotty bodies, and left ulcers behind, which caused no pain, but did not heal. One evening patient was suddenly taken with a very violent pain in the great toe of her right foot, which increased constantly in vehemency and the next day passed over to the adjoining toes, while the first one became less painful, then cold and at last black. Gangrene extended itself with always preceding horrible pain; after all toes had grown black, over the whole foot, then took the leg and the knee and crept up to the thigh. The leg was black and cold, and on the eighth day, when her husband wanted to turn the patient over in her bed, both bones broke and the whole extremity dropped off. Patient felt then a sharp itching all over her body, and each scratched spot grew instantly dark brown. The ulcers, left behind the feruncles became also gangrenous. — (From the Russian Journal: the Friend of Health, 1841, No, 39, in Rust's Magazine, Bd. 60, H. 1.) F. R.

2. *The effect of Hydriodate of Potassa and Bromide of Soda.* — Dr. Scharlan has by experiments established the remarkable fact, that hydriodate of potassa and bromide of soda after their internal

administration are always found in the urine undecomposed and exactly in the same quantity, in which they were administered. He thinks, that the manner in which hydriodate of potassa acts, can be explained not by a penetration into the organic snbstance, but only by a catalytical process, similar to that by which ferment disposes sugar to decompose into alcohol and carbonic acid—the hydriodate of potassa disposes the blood to disburden itself of anomalous humors.—(Casper's Wochenschrift, 1842, No. 27, p. 433.) F. R.

3. *Acupuncture in Neuralgia.*—M. Lallemand of Montpelier has for many years been in the habit of using acupuncture in cases of *genuine* neuralgia with very decided benefit; against rheumatic pains, he says, it is quite inefficacious. We must therefore be careful to discriminate the cases for its employment; otherwise we shall certainly be disappointed. If the pain be limited to the *trajet* of the nerves, we may with tolerable confidence promise relief, if not a complete cure, of the suffering. M. Lallemand relates many cases: one we shall briefly notice. A man had for six months been afflicted with most severe pain along the whole course of the sciatic nerve; five needles were inserted along its track, and left in for three hours, The application was repeated at intervals of one or two days, four successive times; and the man was then completely cured.

4. *Anti-Neuralgic Pills.*—Dr. Eisenmann of Munich, in a well written paper on the general employment of alterative medicines, points out the utility of combining two or more of them together in certain cases of disease. He dwells particularly on some cases of severe neuralgia, which are more or less connected with an agueish state of the system, but which nevertheless resisted the effects of bark alone. If, however, he says, a medicine, which acts on the nervous system, be combined with bark, we shall often succeed in effecting a cure. He strongly recommended a combination of quinine, strychnine, and extract of belladonna. [The remark is very rational and just.]—(Medico-Chirurgical Review.)

5. *Diagnosis in Paraplegia.*—When paraplegia originates in disease of the spinal cord itself, retention of urine or irritability of the bladder often announces the approach of the disease long before the loss of power in the limbs becomes evident; whereas, in all those cases in which the paralysis creeps from the extremities along the nerves towards the spinal marrow, the bladder is affected only at a late period of the disease.—(Medical Examiner, from Graves' Syst. Clin. Surgery.

6. *Treatment of Varicose Veins.*—M. Moulinie recommends the following method of operating for the cure of varicose veins, as not being attended with the bad results that not unfrequently succeed to other similar operations:—

"A fold of the skin is taken up in a direction parallel to that of the vein, and at some distance above the varicose part, an incision is then made across this fold down to the cellular tissue around the vein, disturbing the part by dissection as little as possible. An eye-probe, armed with a silk or fine thread, is then passed under the vein, and the latter is then tied. An incision is often made across the vein, a little above the ligature, for the purpose of preventing any inflammation of the vein spreading by continuity along it. The skin is then brought together by strapping, in order to protect the vein from the contact of air as completely as possible."—*Amer. Jour.. from Bonheur en Chirurgie.*

7. *On the Removal of Blindness depending upon Palsy of the Iris.*—By Alexander Ure, Esq.—The author described the case of a female patient, who had come under his care at the Western Eye Dispensary, in consequence of having been suddenly attacked with blindness in one eye. The pupil was dilated and immoveable, and she was wholly unable to distinguish light from darkness. Judging the case to be one of idiopathic palsy of the iris, the author proceeded at once to employ the method of cauterizing the circumference of the cornea by nitrate of silver first proposed by Serres. The result was prompt restoration of sight. He pointed attention to the importance of discriminating accurately between palsy of the iris and amaurosis; since the treatment which is so efficacious in the one would be no less improper than useless in the other.—(Bull. Med. Science, from Med. Gaz.)

8. *Continental Treatment of Neuralgia.*—Dr. Schleiser, of Peitz, has prescribed, with success, to patients with abdominal neuralgia, but whose circumstances would not permit of their visiting a watering-place, the use of an artificial mineral water, resembling that of Eger, in Bohemia, and made as follows:—℞. *Filtered spring-water*, a pint; *diluted sulphuric acid*, two drachms and a half; *hydrochloric acid*, twenty drops. Mix, and add *bicarbonate of soda*, forty-five grains. The bottles are then to be sealed up without delay, and kept cool; one or two pints may be drunk daily. In hepatic neuralgia, Dr. Schleiser depends much on the effects of belladonna; in cases where great irritability of the stomach is present, he finds nitrate of silver suitable, combined with morphia.—(Boston Med. & Sur. Jour. from Rust's Magazine.)

Morphia has been an ordinary remedy for neuralgia, the cure of which it may, in certain cases, effect; but a French practitioner, M. Rougier, has advised the adoption of an ingenious method, which he says will prove the completeness and permanence of the cure. After the apparent removal of the disease by the morphia, he administers successive small dozes of strychnia, gradually increasing the amount of the dozes and abridging the intervals between them. Now, if the cure have been complete, the tremors and other characteristic effects of the strychnia go on diminishing in intensity from the first, notwithstanding the increasing strength and frequency of the doses; but if otherwise, a contrary result happens, and the effects of the strychnia increase in intensity.—(Boston Medical & Surgical Journal, from L'Experience.)

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9. *Mercurial Salivation cured by Nitro-muriatic Acid baths.*—A case of salivation in a child of four years of age, resulting from the use of mercurial frictions employed for the cure of meningitis, is related by Dr. Baumgartner in the *Jour. des Connaiss. Med. Chirurg.* (March, 1843.) The salivation was excessive, and for two months and a half resisted all the usual remedies employed to control it. M. B. then prescribed warm baths, slightly acidulated with equal parts of nitric and muriatic acid, and after the third bath the salivation ceased and did not return.—*Am. Jour.*

10. *New Preservative for Animal Substances.*—A French physician has addressed a paper to the Academy of Sciences on the power of a *syrup of iron* to preserve animal substances unchanged. This syrup is a combination of sugar and iron which does not decompose, crystallize, or ferment, at any temperature.—Meats kept in this syrup diminish very little in weight, resist the most active putrefactive agency, and on being washed in cold water resume their original volume and appearance as from animals newly-killed.—(Ib.)

11. *Herpetic Pruritus.*—Dr. Barosch has cured a case of herpetic pruritus of the perineum and scrotum, which for twelve years resisted various remedies, and caused the greatest discomfort to the patient, by the following solution:—℞. Iodine, gr. xv., hydriod. potass. ℈ij.; solve in aq. distill. ℥v. alcohol, ℥j. M. This solution applied to the parts, in three weeks effected a complete cure.—(Amer. Jour., from Oesterreichische Med. Wochens.)

12. *Usual course of Rheumatism in the Horse.*—M. Tessier remarks that M. Boullay, one of the most experienced veterinary surgeons in Paris, assures him that the ordinary course of rheumatic inflammation in the horse is the very reverse of what is usually the case in the human subject. In the latter, as all know, the affection of the joints is primary, and that of the pleura, pericardium, or other internal part is consecutive or secondary; whereas, in the former, pleuritis is generally the primary, and the arthritis the secondary affection.—(Medico-Chirurgical Review.

13. *New Orleans Hospital Reports.*—A correspondent of the New Orleans Tropic asks, very properly, who furnishes the reports of the Charity Hospital—the number of admissions and the character of the disease? He says that he has been a daily visiter of the institution for some time, and is convinced that not one fourth of the cases reported to be yellow fever, are so. It seems that the house physician has little or no hand in the business of christening the disease of which a patient is sick, but it gets a name through a newspaper reporter.—(Boston Medical and Surgical Journal.

THE WESTERN LANCET.

CINCINNATI, OCTOBER, 1843.

CLEVELAND MEDICAL COLLEGE.

This is a new medical school, which has been recently organized in the city of Cleveland. Although the *school* is new, the *Professors* are not unknown to fame; four of them were formerly teachers in the Willoughby Institution, and the fifth recently occupied a chair in the Medical College of Ohio. Prof. Worcester, who formerly held the chair of Pathological Anatomy and Physical Signs of Disease, in the Medical College of Ohio, will doubtless impart an additional interest to this school to which he has become attached. We have had the fullest assurance, that the class here was highly gratified with the manner in which he discharged the duties of his chair, although his health was greatly impaired during the entire winter. The degrees will be conferred by the Western Reserve College.

We have been requested to state, that Prof. Delemater will not lecture in the Franklin Medical College, Illinois, but that his labors will be exclusively devoted to the Cleveland College.

We have received a Circular from the Trustees of the Willoughby Medical School complaining of the abandonment of that institution by its Professors; and also, that they are fully determined to organize an efficient Faculty for the ensuing winter. Should this be accomplished, Ohio will contain three medical schools.

Willoughby University of Lake Erie.—Since the preceding article was written, we have received a circular, announcing that the above institution has been reorganized, and that a regular course of medical lectures

will be delivered the ensuing winter. The following gentlemen compose the faculty: Amasa Trowbridge, M. D., *Prof. of Surgery;* James Quackenboss, M. D., *Prof. of General and Special Anatomy and Physiology;* R. H. Paddock, M. D., *Prof. Chemistry, Pharmacy, and Materia Medica;* John Butterfield, M. D., *Prof. of Theory and Practice of Physic, and Physical Signs of Disease;* Hosmer Graham, M. D., *Prof. of Obstetrics and Diseases of Women and Children.* It is stated that the lectures are so arranged, that a part only, of the branches taught, is in progress at the same time. The lectures on Chemistry, Anatomy, and Materia Medica, occupy the first part, and Theory and Practice, Surgery and Obstetrics, the latter part of the term.

Ohio has now three well organized medical schools, besides a full course of summer lectures in Cincinnati. With all the advantages which our country affords, for the acquisition of a sound medical education there can be no apology for a deficiency in the professional elementary acquirements of medical students.

Treatment of Old Ulcers.—The following method of treating old ulcers, suggested by W. Ferguson, Esq., surgeon to King's College Hospital, may be of some value.

In the case of a large, foul, and painful ulcer, on the lower part of the left leg, the following course was adopted:—Twelve grains of bichloride of mercury was made into 240 pills; two of these to be taken immediately after dinner, the first day, four the third, six the fifth—increasing the dose by two every second day. The dose may be diminished, if necessary, in the same ratio. Strong tincture of iodine was applied to the ulcer at the same time. The patient recovered.

Subcutaneous Ligature of Arteries.—M. Avignon recommends the subcutaneous mode of ligaturing arteries. It has never been performed on the human subject, and probably never will be.

Epidemic Abortion among Cows.—The farmers of Trais Croix were greatly alarmed at the repeated abortions among cows; and the affair seemed to be a complete enigma until M. Bodin, director of the School of Agriculture, discovered that the grains of the rye,

upon which the cows were feeding, contained a considerable quantity of *ergot*. This was supposed to be the cause of the animals' aborting.

ECLECTISM IN MEDICINE.—This is the title of a new work, preparing for the press, by Victor J. Fourgeaud, M. D., of St. Louis, Mo. The course adopted by the author, we understand, is to review all the various systems that have gained notoriety, from the earliest ages to the present time, and to deduce from them a system more rational than any of its predecessors. Dr. Fourgeaud is well qualified for this arduous task; and as his opportunities have been ample, having had access to the extensive Parisian Libraries, we have reason to expect a meritorious production.

HAHNEMANN AND THOMSON.—These two noted empirics have recently died, both at advanced ages. The characteristics of Hahnemann and Thomson, were diametrically opposite. The former was a shrewd, well educated, systematic, scheming man; the latter, a bold, confident, presumptuous and ignorant pretender. And their systems are equally unlike. That of Thomson is indiscriminating, bold, and often destructive; that of Hahnemann is indiscriminating beyond all possible practice or conception, and inefficient, or, indeed, totally negative. It would be a delicate question to adjudicate, whether Thomson had done more injury by positive, bold, improper treatment, than Hahnemann by negative means.

But why dwell on the memories of men who lived only to traduce science and propagate error? The future historian need not revert to these names to exemplify the indomitable credulity of mankind. Other representatives of this sub-human race will be at hand to eclipse the posthumous glory of departed deceivers. The blight of ignorance and deception have long since spread over the fairest portions of science. But why point the finger of scorn at the pall-like memories of Hahnemann and Thomson? Their places will be more than filled, ere the green sod springs from their graves. The idols are gone, but the worshippers remain. There is an element in the human mind that dwells not on realities,—it feeds not on the

sober and palpable truths of nature, but like an erratic spirit, it wanders through the mazy shades and mists of delusion, and selects the most monstrous absurdities as the revealed secrets of nature. To satiate this appetite, what care we whether it be by steam and pepper, or the "shade of a shadow," or the metallic tractors, or the pills and "draps" of the scented hero of Cincinnati,—the purblind—gonorrhœal—opthalmia, Negro Doctor. If brandy and salt, or pepper and lobelia, or Priessnitz's cold sheets, will meet the desires of the mystified multitude, let their application be full and free,—let the supply equal the demand. By the way, *it is* strange that Thomson should die while *heat* could be procured, or that Hahnemann should have departed while *little enough* medicine could be given.

Western Law Journal.—We are gratified to learn that a Law Journal has been commenced in this city, the first publication of the kind in the West. It is edited by Judge Walker, an able and distinguished jurist. Although physicians are not immediately concerned in the prosperity of a Law journal, yet they have more interest in jurisprudence, than might at first appear. If lawyers were better acquainted with the general principles of medicine, and if physicians had a more extended knowledge of the legal relations of their profession, the community and themselves would be benefitted. Should any of our friends be disposed to extend their legal acquirements, we commend to them the Western Law Journal.

The Maryland Medical and Surgical Journal.—Has been discontinued. The loss of a good work is to be regretted.

To Correspondents.—Communications have been received, and marked for insertion, from Dr. Dawson, and Dr. M. Winans.

THE

WESTERN LANCET.

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ORIGINAL COMMUNICATIONS.

ART. I. — *On the Topography, etc., of Fairfield County, O* — By J. M. BIGELOW, M. D., of Lancaster, O. Read before the Medical Convention of Ohio.

THE County of *Fairfield* is situated between the 39th and 40th degs. of north latitude. It is bounded on the north by Licking County, on the west by Franklin and Pickaway, on the south by Hocking and a small corner of Ross, and on the east by Perry. It is 30 miles long from north to south, and 24 miles wide from east to west, containing about 540 square miles.

The general surface is uneven and broken, particularly the southern portion of it; while the north-eastern part, constituting mostly the dividing highlands between the Muskingum and Scioto vallies, is rather flat, or merely undulating. South of Lancaster the surface is broken by precipitous cliffs of coarse sandstone, which generally face the vallies, the summits of which are elevated about 300 feet above low water mark of the Hockhocking at Lancaster One of these ridges extends north of the town about 3 miles, and in the vicinity there are several isolated hills or knobs of the same formation. Extensive and picturesque views of the surrounding country may be obtained from the top of these hills. The bold and columnar front of these precipices gives them a romantic appearance, and in the winter season when the field and forest are disrobed of Flora's mantle, the eye is relieved of the dull brown monotony of nature as presented on the plains

below, by the elastic and invigorating variety of the evergreens with which they are covered.

These evergreens consist of the scrub or jersey, and yellow pitch pines, (*pinus inops, and p. rigida*) laurel, (*kalmia latifolia,*) and still farther south, the American rose bay (*rhododendron maximum,*) and spruce pine (*pinus canadensis*) occur very frequently. Besides these evergreens which generally cover the rough and most romantic portion of the hills, the sloping sides are covered with stately and valuable timber trees; among the most common of which are the white, black, red, scarlet and chesnut oaks (*quercus alba, q. tincioria, q. rubra, q. coccinea* and *q. castanea,*) the stately and beautiful poplar or tulip tree, (*liriodendron tulipifera*) the timber of which affords nearly all our domestic weather-boarding; the chesnut, (*castaneavesca*) etc., etc. The Hockhocking valley divides the county into two nearly equal Eastern and Western divisions. The streams which traverse the county are not of much magnitude, but they are of importance in the view of its medical history. The Hockhocking, which debouches into the Ohio some miles below the mouth of the Muskingum river arises in the north-western part of the county about ten miles from Lancaster in the township of Bloom. Seven miles from Lancaster on the Columbus road, it falls over the sandstone rock formation forty feet, into a narrow ravine which soon widens below into a rich and fruitful valley.

Clear creek arises in the western section of the county, (Amanda township) and runs nearly in an eastern direction until it meets the Hockhocking, into which it empties one mile below the mouth of Rush creek in the county of Hocking. Little Walnut creek arises also in the highlands of Walnut township, and traverses the whole width of the county in a westerly direction bearing South, and joins the Scioto about seven miles above Circleville in Pickaway county. Although no streams of any consequence arise in this county, which flow into the Licking summit reservoir, yet, nine or ten miles of the north-eastern boundary of the county being washed by these waters, and exerting a powerful influence in modifying the diseases of this section, renders it incumbent to notice it. These streams meander

very much, and with few exceptions, are sluggish in their motions. The exceptions are in the Hockhocking and Clear Creek in the southern section of the county, where the precipitous sandstone cliffs encroach upon the vallies and render them quite narrow. The water of the reservoir is entirely stagnant, and is filled with immense quantities of aquatic plants, such as *potomogeton notans*, *polygonum amphibium*, *nuphen advena*, *udora canadensis*, *miriophyllums* and *ceratophyllums* of probably several species, etc.

The soil along the vallies of the streams is as fertile, probably, as any in the State, particularly in the Hocking, where in some places the alluvial deposits are from ten to fifteen feet deep, consisting, many times, almost altogether of decayed vegetable roots and fibres. The sycamore or western plane tree, (*platanus occidentalis*) cotton wood, (*populus lævigata*) with the elms, oaks, maples, walnuts, ashes, and honey locust, (*gleditschia triacanthos*) constitute the principal large timber trees of the vallies.

In the highlands of Walnut and part of Liberty townships, the subsoil consists of a very impervious and tenacious blue clay, which with the flatness of the surface, renders the "elm slashes" or little marshy ponds of water of very frequent occurrence. The soil here is rather cold and argillacious, but the beech, (*fagus sylvestus*) sugar, (*acer sacheharinum*) white and red oaks, wild cherry (*cerasus serotena*) swamp and burr oaks, (*quercus palustris* and *q. macrophyllus*) white and slippery elm, (*ulmus Americana* and *u. fulva*) hickories, (*carya alba*, *c. sulcater*, *c. amara*, and *c. tomentosa*) black and white walnuts, (*juglans nigra and j. cincrea*) abound in full stature and maturity. The soil on the diluvian or lands elevated ten to fifty feet above the alluvion is variable, but generally well fitted for the production of wheat — our great agricultural staple. That covering the hills is thin, but well adapted to the cultivation of yellow or thin tobacco, of which a considerable quantity is anuually produced.

Besides many excellent springs of pure water gushing from the bowels of the earth, and found by excavating the earth from fifteen to fifty feet, there are also many springs and wells which contain

sulphate of iron in solution, and probably some other salts. They have not been examined analytically as far as I am acquainted. I have thought that the constant use of the water impregnated with these mineral substances has been detrimental to the health of those who use them.

The Hocking valley canal traverses the county nearly diagonally commencing near the North-western corner, and terminating in the south-eastern limits of the county. Considered in a medical point of view it is not of much consequence, since it is not perceived to have any influence at the present time, in modifying our diseases. The effect of newly excavated earth in producing malaria was strikingly illustrated in the progress of the extension of this canal. When the canal was first opened under the auspices of the company, it terminated at Main street. The year they made their principal excavations and the year following, intermitting fever in its various forms, prevailed almost universally in the immediate neighborhood: scarcely a house having been exempted from attacks of the disease. Main street palpably bounded its prevalence on the South, and very few cases were observed east of Columbus street, which comes in from the north nearly parallel with the canal, and about one square east of it. The second year that it was opened, this part of the town suffered from this disease more than any other. On the following year, 1835, the State having purchased the canal from the company, continued it through the South-western and Southern part of the town, and the freshly exposed earth as palpably produced malarious diseases in the parts of the town contiguous to the improvement, as it had done the preceding year north of Main street. Another fact should be stated in connection with this subject in order to arrive at an approximate estimation of the cause of disease. This is with regard to the nature of the earth excavated. The canal runs along the bank which separates the alluvion of the Hocking valley from the diluvial deposits of the upper country, the earth of which consisted almost exclusively of coarse and fine gravel intermixed occasionally with sand. Probably there was not a spadeful of alluvial deposit removed in the excavation of the whole canal within the limits of the town. Another illustra-

tion may be cited in the improvements of the corporation. In the spring of 1840, our Town Authorites graded the whole extent of Mulberry street, by cutting down and filling up. In the fall of that year, hardly a family in that street escaped intermitting fever in some of its forms.

Immediately in the vicinity of the town there are many small ponds of stagnant water, that some years contain considerable water. I have been told that even in some places where the town now stands, in early times there were marshy ponds which have since been filled up by the industrious hand of man. It is a curious fact that some seasons these ponds are nearly dry nearly almost the whole period, while at other seasons they are nearly full of water for the same length of time, and this, too, may not correspond with the wetness or dryness of the season. This circumstance, I have no doubt, has a good deal of influence in the production and modification of disease. They are accounted for by the following reasons:—

Many years the winter sets in early when the bottoms of the ponds are dry and exposed to the frosts by which it is rendered impervious to the water. The freshets of the winter and spring fill them full, and it becomes late in the season before they begin to sink by infiltration, and it consequently becomes late before they are dried away.

Other years are remarkably open, and although as much or more water may be carried into them, yet by constant infiltration from the pervious condition of the bottoms, and although we may have more than a usually wet season, the ponds will be dry the greater part of the year. These are undeniable facts, yet their existence has not been heretofore noted in connection with our autumnal diseases, as they should, to arrive at just conclusions on this subject.

2.—GEOLOGY.

In 1836, Dr. S. P. HILDRETH, chairman of a committee appointed for the purpose, reported to the Legislature of Ohio that an appropriation of $12,000 dollars for four years would in all pobability cover the cost of a thorough, regular, and scientific geological survey of the State, and in a spirit of enlightened liberality the legislature soon constituted a board of active, intelligent, and scientific men for that desi-

rable object. The scope of their researches was to embrace not only simple geology, mineralogy, agricultural capacity, topography, botany, zoology and conchology. It is much to be regretted that the legislature saw fit, from some cause or other, to suspend their operations long before they had had time to finish their investigations; and thereby abridge much of the usefulness of such an enterprise from the defective state in which it was necessarily left. Enough, however, was collected from their labors to show what might have been done, had time been allowed for its accomplishment.

The reports of the principal and assistant Geologists have been published that furnish a large amount of valuable information, which, had it been finished, and been embodied in a scientific form, would have been an inestimable acquisition to the natural history of the State. Defective as it is however, it is valuable.

The reports of the Naturalist, PROF. KIRTLAND, show that his branch was too excursive — embracing too wide a field to be thoroughly investigated in two or four or even more years. The extensive classes of botany and entomology of his department were left entirely untouched in his communications to the State. His lists of animals, birds, fishes, reptiles, shells, etc., show that he was not at all inactive, and give a great insight into the productions of the animal kingdom in the State.

It is much to be hoped, since so many of her sister States have so far outstripped her in their scientific investigations of their natural and productive materials, that Ohio will soon awaken up to a true sense of duty on this all important subject, and finish a work which she had so gloriously begun, in a style commensurate with the dignity of her standing in the Union. In his reconnoisance of the Hocking valley, MR. BRIGGS Assistant Geologist says, "It should here be remarked, that these counties (Athens, Hocking and Fairfield) present so many interesting subjects to the geologist, in an economical and scientific view, that months, instead of a few weeks, might be profitably spent in their examination.

"As it is, it should not *by any means* be supposed that valuable discoveries will not, hereafter, be made; but on the contrary, that the

present examinations, although as minute as time would permit, will only serve as a guide, or incitement to future developments."

The rocks along the Hocking valley are of the latest secondary conglomerate sandstone which are in the immediate vicinity of the coal measures. Coal, however, very rarely or never occurs within the limits of the county.

In the lower counties of Hocking and Athens, coal, iron and salt, are conveniently obtained in great abundance. The coal is evidently of vegetable origin, and contains the organic remains of recent and extinct species of vegetables in considerable quantities. The color of the rocks varies from nearly a pure white to a reddish brown, or purple, according to the nature and degree of the metalic oxides upon which the color depends. These oxides are almost universally of iron, though occasionally traces of the oxide of manganese may be observed. The sandstone rocks are occasionally intersected by thin and irregular veins of the compact peroxyde of iron, and they sometimes contain small amorphous masses of the sulphuret of iron. This stratum reposes on a fine-grained sandstone, which is quarried south of us, under the name of the Waverly stone, varying in thickness from two to three hundred feet. In some places it is an aggregation of quartzose pebbles and silicious sand, while in others there are few if any pebbles — the rock assuming the character of sandstone. The rocks of this valley, like most secondary deposits, are generally horizontally stratified.

An inexhaustible abundance of the finest building material can be easily obtained from this substratum. But those quarries, however, which are situated near the sites of towns and along the valley of the Hocking will be the most valuable, as they can be easily transported to their destination, and along the line of the canal. For locks, culverts, and other works on the canal, there cannot be found a better material in the State; and for house building, etc., it is superior to the fine-grained sandstone, if care be taken in its selection. Some portions of this stratum being destitute of aluminous matter, and the oxides of iron, might be advantageously used in the manufacture of glass.

In excavating the canal, some years ago, at the deep cut, as it is called, six miles north-west of Lancaster, parts of two skeletons of the mastodon were discovered, about six feet below the surface, embedded in blue clay. Among the bones exhumed were an enormous fragment of a tusk, measuring something like nine feet in length; several vertebræ, ribs, an humerus, etc., which soon crumbled to pieces on exposure to the air. I have now a tooth of a large size, obtained from the same place, which remains in a perfect state of preservation. It weighs about six pounds.

Summer before last I saw two incisors and a molar tooth of a new species of organic remains, described and figured in the geological report of MR. BRIGGS, under the name of *castoroides ohioensis*, belonging to the *rodentia*. They were dug up by one of the workmen, while engaged in enlarging the canal, four miles from Lancaster. He being a yankee of the northern part of the state, I was unsuccessful in driving a bargain with him for these interesting specimens.

3.—ZOOLOGY.

Although this branch of Natural History is probably as rich as any other section of equal extent in Ohio, yet I am not familiar enough with it to say much on the subject, and in a strictly medical point of view it is not necessary. I will therefore dismiss it and leave it to those more competent to the task.

4.—BOTANY.

This branch particularly the medical section of it, having a direct and practical bearing upon the science of medicine, will of course claim our special attention. Of the cultivators of this interesting branch of science in Ohio; it may not be irrelevant for us in this place to speak. Among the first that may be mentioned is DR. DAN'L DRAKE, who, if he has not collected and written upon the subject of systematic botany himself, has, through the influence of his "Western Journal" of the "Medical and Physical Sciences," and of "Medicine and Surgery" at Cincinnati and Louisville, done much in the furtherance of this interesting subject.

In the eighth volume of his "Journal" is published a "synopsis of the Flora of the Western States," by Dr. J. L. RIDDELL, in which

is included a comprehensive catalogue of many of the plants of Ohio. In his reviews and editorials upon this subject, he always encourages the student to more energetic perseverence in his pleasing pursuits. Or, if he cannot by these means arouse the young physician of leisure, and the man of taste and independence, to enlist in the cause of science, he will at least shame some of us into it, by pourtraying the beauty and facility of engaging in such delightful enterprises.

DR. JOHN L. RIDDELL has been a devoted laborer in the field of Ohio Botany. As before intimated, he has published a comprehensive catalogue of our plants — enough to shew us the richness of our field of enterprize, and the practical and important bearing it has upon the science of medicine. He enumerates one thousand seven hundred and seventy-four species of phænogamous and filicoid plants; of which nearly one thousand he either locates in Ohio, or as common to the Western States, inclusive of Ohio. Besides these, I find in my botanical rambles in this county alone, about one hundred and thirty species more, which he has located in the adjoining or more western States — his limits, "extending from the Alleghaney mountains in western Virginia, to the Platte river in Missouri Territory, and from the southern boundary of Tennessee to the latitude of Detroit; embracing Ohio, Indiana, Illinois, Kentucky, West Tennessee and Missouri, a small part of Virginia and Pennsylvania, and of the Michigan, North West and Missouri Territories."

In addition to this MR. SULLIVANT and myself have within a few years found upwards of 150 species in the two adjoining counties of Franklin and Fairfield, which are not contained in his list of plants; making in all about 1300 species of Ohio plants which have been listed. When we take into consideration, the fact that central Ohio was the principal field of DR. RIDDELL's personal observations at the time he published his synopsis; we can easily conjecture, that the field of Botanical enterprize is still open to the scientific adventurer in Ohio.

WM. S. SULLIVANT, Esq., of Columbus, is another ardent, intelligent, and scientific cultivator of this interesting branch of natural history. About the year 1837, MR. SULLIVANT and his accomplished

LADY, in seating themselves upon their beautiful and highly cultivated farm, two miles west of Columbus, found that they were surrounded with the elements and beauty of *flora's kingdom.* They both determined to enlist under her banner, at least so far as to amuse themselves during their leisure hours, in determining the extent of Flora's bounty upon their homestead; for with the cultivated eye of true philosophy, they at once saw that for the gorgeous embellishment of their patrimony, they were indebted to the profusion of nature in blending the useful with the delightful, and exposing her loveliness to the gaze of her admirers. Thus, in the economy of human life, trifling incidents frequently give rise to circumstances that ultimate in important events. So in the department of which we are speaking, a little acorn not bigger than a toy thimble will give rise to the gigantic oak—the pride and king of the forest. Thus it was with MR. SULLIVANT and his accomplished LADY: from becoming the amateur botanists of a few acres, they extended their botanical researches, not only over Ohio, but in a measure, over the whole known world. In the short space of time in which he has been engaged in these pursuits, Mr. Sullivant has, probably, personally collected more plants than any other botanist of Ohio.

DR. SHORT, of Kentucky, has frequently given us the promise of a full Western Flora — a work much needed; and Dr. RIDDELL in his prefatory remarks to his synopsis, said that he designed publishing one when he had collected a sufficiency of materials; but we will have to look to Mr. Sullivant, who with what he has already collected, would soon fit himself for the arduous undertaking. Mr. Sullivant has published "A Catalogue of the Plants around Columbus," done especially for the purpose of facilitating exchanges with other botanists, which contains, however, at this time, no sample of his collections since made. He is actively engaged in correspondence with Professors TORREY and GRAY of New York, and affording them material assistance in the formation of their great national work — "the Flora of North America," which is in progress of publication.

Upon the subject of the geographical range of plants, Mr. Sullivant makes the following just remarks. "There may be little error

in saying, that Ohio occupies somewhat a middle ground among the eastern regions of North America that have been as yet botanically explored. Evidences of such a position may be observed in her vegetation. We find here plants affecting the high latitudes of British America—plants whose proper stations are much to the south of us, and others peculiar to the western territories — the field of NUTTALL's successful labors —together with many common to the states lying east and north-east of us."

DR. PADDOCK, of Worthington, and DR. HORR, of Baltimore, in this county, are the only remaining botanists with whom I am personally acquainted. They are zealously engaged in exploring the riches of their immediate neighborhoods, while arduously engaged in the pursuit of their profession, which precludes them the opportunity of making their field of observation as broad as they could otherwise wish. Such, also, is the case with myself.

Besides those already mentioned, I have heard of DRS. LOCKE and WARDER, and MESSRS. BUCHANAN, LEA, and CLARK of Cincinnati ; and MR. VAN CLEVE of Dayton.

Two years ago, DR. HORR and myself made out a pretty full list of plants for this county, which was published in the proceedings of the Convention of 1841. We have both made considerable additions to that list, but not many of which are medicinal. The *menyanthes trifoliata, pontederia cordata, nymphæa odorata,* and *nelumbium luteum,* are among the most prominent for beauty as well as the possession of medicinal powers.

It is somewhat singular, that although in this county we have a greater variety of plants, on account of the greater variety of our Geological features, than they have in Franklin, and notwithstanding that county has been the permanent and temporary residence of a number of Botanists, for a considerable length of time, while our county has never been visited by any one excepting Mr. SULLIVANT; yet up to this time I am not aware that a single undescribed species has been found.

In Franklin, however, MR. SULLIVANT has within a year or two discovered 5 or 6 new and very distinct species of plants. As if to

give me some hope, nevertheless, MR. SULLIVANT in a letter last fall writes: "I found here last summer (growing abundantly) a *new? fedia.* Upon reference to a little parcel of plants received from you last winter, I find a paper of fedia fruit among which is this. I sent it to DR. GRAY, with notice of your right of first discovery. He thinks it must be new — his books, at time of writing, not being at hand. It will turn new without doubt." Thus it will be seen that but one (if this be one) undescribed plant has been found here.

In the variety of vegetable productions of this county, there are several common ones that are decidedly poisonous. Among these we reckon the leaves and fruit of the fetid Buckeye *(æsculus glabra,)* laurel, *(kalmia latifolia,)* and big laurel, *(rhododendron maximum.)* These, particularly the two former, are frequently eaten by cattle when there is a scarcity of food, which frequently occurs during long and protracted winters. As far as I know, there has never been any disease communicated to man or carniverous animals by the milk or flesh of those that die from this cause. There are two species of *rhus*, of a highly poisonous nature, very common with us, one of which is quite celebrated, as having been supposed by many to be the cause of "*milk-sickness*" and "*trembles.*" The first written account that I saw representing this species *(r. toxicodendron)* as being the cause of these diseases, was in the Ohio State Journal about the year 1835 or 36, by MR. THOS. S. HINCLE, then a resident of an infected district, but now of the State of Illinois. He, with many others, consider the matter settled beyond a doubt. DR. DRAKE, in an elaborate memoir upon this subject, read before the medical convention of Kentucky, at Frankfort, January, 1841, has very thoroughly examined it in its various aspects by personal observations on the spot, and comes to the conclusion "that the *rhus toxicodendron may be* the cause, and renders the popular opinion of the district [that it is] highly probable." The district which he visited consisted of the counties of Fayette, Madison, Clark, and Green in this state. In proof of his conclusions he brings forward the following affirmative tests. "1st. It exhales a noxious effluvium and appears to contain a poisonous juice. 2nd. It is of a proper size to be eaten by, while

it is accessible to, all herbiverous animals which are subject to the disease. 3rd. Cattle and horses are known to eat it, when not constrained to do so by the want of other food. 4th. It is in leaf in summer and autumn when the disease chiefly prevails; and its pith and tender stems may be eaten in winter. 5th. It grows abundantly in and around the spots which appear to produce the disease; and most abundantly where the disease has prevailed most; as on the plateau west of London; while it is scarce in all those portions of the district from which the disease is absent. 6th. By cutting down or deadening the trees to which the *rhus* attaches itself, and by breaking up the surface of the ground the whole plant is immediately destroyed, and with this change the disease disappears." "Thus" he says "the *rhus toxicodendron* stands the whole of our proposed tests." These, however, he candidly admits do not conclusively prove that it is the cause of this disease.

We must be pardoned if we examine how far his "tests" will really carry him in the *proof* of his position, and as we do it with the view of eliciting the truth, we will endeavor to analyze them in the utmost spirit of candor. 1st. The rhus venenata possesses the same sensible qualities, and the same virulent properties, excepting in a higher degree. Its poisonous and medicinal effects upon the human system are exactly similar, and if one possessed the power of poisoning cattle so as to produce trembles; the other would be very likely to produce the same result, and the most active would be the most certain in producing it. Now Dr. Drake does not believe that the r. venenata is the cause, because it occurs in places proverbially exempt from the disease more abundantly than where it prevails. 2nd. Other plants as well as the r. venenata are as accessible to cattle and even sheep, as the r. toxicodendron. 3rd. If cattle and horses eat it without compulsion *in* the infected districts, why do they not do it *out* of the district, where the plant is equally abundant? 4th. Every other plant that has possessed the reputation of causing the disease is in leaf in summer and autumn when it chiefly prevails, equally as well as this plant. 5th. It grows very abundantly in Wright's field one half mile from town, where cattle in the latter

part of summer and fall have easy access to it. It grows abundantly and most luxuriantly in the "slashes" of the Licking summit in this and Licking counties; yet those diseases have never been known in either of them. 6th. The cutting down, deadening, plowing, harrowing etc., practiced to arrest the disease, does not destroy the r. toxicodendron more readily or surely than *every* other kind of indigenous herbage. All the negative facts which he gives in opposition to the opinion of the rhus being the cause of the sickness, he invalidates with the exception of one, which is, "that there is no conclusive evidence of a single case of trembles having been produced by it." DR. DRAKE avers that "throughout this memoir we hence *almost* adopted the opinion, that the elm and *rhus* slashes of the oak plateaus, and these alone, are the abode of the special cause of the trembles," and yet in his medical Journal he seems disposed to take some of his friends to task, for controverting that opinion, half formed as he confesses it to be. At the risk of being classed with the "milk-sick literateur of the west," we must controvert one more of the positions which he takes to *almost* prove the object of his memoir. It is this:—"When the *r. toxicodendron*, grows in dry situations, and hard ground," he writes "it sends up few or no shoots; and the so-called *poison oak* disappears; but when it finds itself radicating in a rich, loose, and permanently wet soil, it sends out its horizontal roots far and wide, from which start up numerous shoots, that rise to the hight of two or three feet, and present a shrubbery of what is called *poison oak.*" Now, so far from this being always true, the reverse very frequently occurs. In a field not more than one half mile from this town, a part of it is cultivated, and the balance being too hard and sterile to be cultivated with profit, is permitted to run to waste, and among the shrubbery, there is a great quantity of the *rhus* shooting up its stems from one to two feet high. Now every year that it is planted in small grain, cattle are permitted to run upon it after harvest, and yet they have neither been poisoned by it, nor have the trembles or milk-sickness been produced. On the other hand we frequently meet with it in rich, loose, wet soils, where they grow to such a hight before they send out their lateral branches as

to be entirely out of the reach of cattle. It seems to be a law with this, as with many other plants, that when the growth, from any cause, has been arrested in the main stem, to send out numerous suckers and branches from below.

With regard to the "slashes," supposed to be the probable seat of the disease, we cannot speak decidedly; but from the description given of them by Dr. Drake and others, well acquainted with them; we have them exactly similar on the flat highlands dividing this county on the north from Licking; and if the "*rhus slashes*" of Fayette and Madison produce "trembles and milk-sickness," why will not the "*rhus slashes*" of Fairfield and Licking, constituted of the same elements, produce the same disease? We will not pretend to say why, but we know that the disease is not generated here.

The *rhus venenata* of Decandolle is a much more virulent plant, at least so far as its effects upon the human system have been observed, than the r. toxicodendron. With us it is exclusively confined to the rich bottom and prairie lands with a moderate degree of moisture. It seldom, however, grows so high as to preclude the opportunity of cattle browsing upon it, if they were so disposed. Whether they ever do eat the plant I am unable to say.

Eupatorium perfoliatum and *e. ageratoides.* These plants grow in great abundance with us; the first is well known to be highly medicinal. The e. perfoliatum is confined to the rich prairies and bottom lands, and the e. ageratoides to the uplands excepting the sandstone hills. These, however, are covered with the e. sessilifolium, which very much resembles the perfoliatum and the e. aromaticum, which if not a mere variety, bears a close affinity, and very much resembles the ageratoides. All these plants are freely eaten by cattle; and it has never been suspected here, of having done them any harm.

We have five species of *euphorbium* which belong to a very active family of plants, and I have seen it intimated that one species, *(e. maculatum)* is the cause of the severe salivation of horses running in pasture in the latter part of summer and fore part of the

fall. The plant is late in making its appearance, and from the known activity of the natural order to which it belongs, I have no doubt but that it may be the cause of that complaint.

In the year 1834 we had a severe frost as late as the 20th of May, which destroyed every kind of cultivated fruit. The fruit of the common wild cherry, (*cerasus serotina, D. C.*) the plant we have all along been calling prunus Virginiana, of Linnæus, was abundant. In August, a child of Mr. Fleyel, when returning home from school, obtained the wild cherries and eat them. Before he arrived at home, however, he was seized with convulsions. Living in the neighborhood of Dr. Meisse, an empiric, he sent some *sweet oil* as an antidote to the poison. On my arrival, I gave a few drops of aqua Ammonia, and pretty soon after, a brisk cathartic of castor oil. As I had prognosticated, the dejection contained the seeds, almost every one of which were broken in the act of mastication. He had eaten a large quantity, and from having broken the seeds was poisoned by the Hydrocyanic acid, well know to be contained in the seed. Had he eaten them without breaking the nucleus he would have probably escaped with impunity.

The LOBELIAS, of which we have 5 species, belong to an active family. The celebrated *lobelia inflata*, however, is the most active one of our group. Indeed I have thought that all of them but this one are rather inert. Cases of *poisoning* by the lobelia inflata are, however, at this time very rare here, from the fact that the mania for steam and red pepper is decidedly on the decline. It is due to the intelligence of the citizens of our county, however, to say, that the steam doctor never at any time obtained a strong foothold among them.

ART. II.—*Hints for the Correction of certain Practical Errors*—*By* THO'S D. MITCHELL, M. D., Professor of Materia Medica and Therapeutics in Transylvania University.

A well known writer has, with great force, defined good writing to consist in "*proper words in proper places.*" In like manner, we might say of sound and wholesome practice, that, when it demands the active use of means, its excellence rests on the use of *proper remedies at the proper times.* In short, the end of all teaching, so far as Therapeutical medicine is concerned, should be just this and no more. He who learns most perfectly to adapt his remedial agents to the existing condition of the system, will most certainly prove the best practitioner. Here is the secret, however much it may have been enveloped in fog and smoke, by the subtle disquisitions of the schools on things non-essential and often pernicious.

For many years I have been satisfied, that very much mischief has been perpetrated by medical men, out of pure regard to theory. The facts of the case have been lost sight of, or perverted to clear the way for the application of false principles. Especially have I noticed this, in the attempts of physicians to manage the *Bilious Remitting fevers* of our country. If any demur at this title, I cannot help it. What I mean is, just such a kind of febrile disease, as Pringle, and Mosely, and Lind, and Johnson, and Rush, and Cleghorn, and a hundred others have accurately described, as prevalent anywhere and everywhere, occasionally, during the hot season of the year, and that too, in close proximity with what are regarded by all as Intermittents. I never failed to witness cases of this Bilious Remitting fever, from the first year I practiced medicine, in my native State (Pennsylvania) to the last year of my residence there, embracing the period from 1812 to 1831. The very same kind of Bilious Remitting fever, has fallen under my notice in the Commercial Hospital of Ohio, located at Cincinnati, over and over again. Since my residence in Kentucky, I have been called to manage the same form of fever,

not unfrequently, and sometimes in constitutions imbued with all the febrile tendencies peculiar to the far South. During a sojourn of four months in Missouri, in 1835, I found that the most troublesome disease in the hands of the profession there, was what I regarded to be this same *Bilious Remitting fever*. I do not say, because I do not so believe, that the disease as witnessed in the various localities referred to, was always just as uniform in its characters and features, as are the millions of dollars or half eagles that are cast in a common mould. Morbid nature will not be found to wear the same stereotype form, that the chisel of the artist can impart to the senseless marble. And, hence, we should expect to find very considerable dissimilarity in the cases of Bilious Remitting fever, from the most simple departure from the state of health, that may be remedied by abstinence, up to the frightful ravages that it sometimes makes, and the appalling fatality that now and then marks its course. Who has not beheld the same variety in scarlatina?

It is not our purpose to write a history of Bilious Remitting fever, in order to furnish an outline of the vast variety of forms of which it is susceptible. The most obvious points of diversity relate to the head, the stomach, and the skin; and yet the essential feature of the disease is something distinct, in a certain sense, from all these. When I speak of the *essential feature*, I refer to that character of the disease, without a due regard to which the efforts of the physician will be frustrated; and if the patient get well, at all, it will be in despite of the the doctor and his physic. I have special reference to the *period of remission*, which is essential to every case of this kind of fever.

I am very partial to an old-fashioned sentiment, that nature, or rather the God of Nature, does nothing in vain; when, therefore, I find a man who has been the subject of a chill, followed by a febrile, and then by a sweating stage, experience a considerable interval of apparent health, varying from a few hours to one or two days, I cannot but regard this period of respite as pointing to the use of suitable means to prevent a repetition of the chill and all its collateral evils. And, although, in the remitting form of fever, the period of

respite is less accurately defined, and the suspension of the febrile shock far less complete, still the language of nature may be clearly made out, teaching us to seize the golden moments, even of incomplete remission, for the use of such means as may best avail to check the disease, or mitigate its subsequent onsets. Herein consists the true secret of *arresting* a Bilious Remitting fever; or in the language of a distinguished writer, who has been ignorantly criticised, of *cutting it short.*

It is not our present purpose to consider whether every case of this form of fever, be a true gastro-enteric disease, essentially, or not. We have rarely met with a case, that did not call for a pretty liberal use of such agents as are employed to evacuate the stomach and bowels, and secondarily, to affect the skin, in a salutary manner. Now and then, it may be needful to precede these with the use of the lancet, and in addition, to apply ice to the head, sinapisms to the extremities, and, in proper season, to allow a free indulgence in ice and iced water. But, when the remission comes, (and come it will sooner or later) it must be heeded as the voice of nature, and the sulphate of quinine must be administered with a liberal hand. I now utter the precise language of my own experience, and pretty much in the same style as it has been my custom to teach this doctrine in my public lectures, and as I defended it long before I had the honor to occupy a professor's chair.

Take an ordinary case. The patient is seized with a rigor of short or longer duration, followed by high febrile action, hot skin, great thirst, nausea or vomiting, severe pain in the head, pains in the back and limbs, restlessness, etc., etc. The physician finds him in this condition. Perhaps he has had no motion of the bowels for a day or two, and it may be that he has too freely indulged in the fruits of the season, or the good things of the table. It may be necessary to bleed him. This is often the case with foreigners, and, occasionally, with old citizens. More frequently, however, it will be proper to apply a bladder filled with ice to the head, to cover the extremities with sinapisms, to sponge the abdominal region with cold water, and to allay the thirst by the use of ice or iced water. At the same time

it will be needful to administer five or six grains of calomel with as much ipecacuanha every hour, until four or five portions have been taken; and to follow these with clysters and decoctions of senna acidulated with cremor tartar. The ipecacuanha seldom vomits, but spends its force on the skin and perhaps assists the calomel in its salutary operations on the alimentary canal. The design of the whole is to act smartly on the bowels, and thus give a shock to the whole system, the result of which will be, a very palpable remission on the next day or sooner.

This same remission being the pivot on which the issue is to turn, I anticipate it with so much confidence, that on the same prescription that I write for the cal. and ipecac., senna, etc., I generally direct the sulphate of quinine also, with orders to commence its administration just as soon as the febrile symptoms subside, and to continue it every hour, and for several hours after the paroxysm is expected to recur. Should there be objections in the way of the use of this article by the mouth, apply it endermically on the epigastrium, or wrists, or give it by injection. It will often be found, that the patient will not experience cerebral uneasiness from this tonic, given by the mouth; if the extremities be kept irritated by some of the active revulsives. Such has been my experience.

Very recently, a gentleman from the far South became my patient, in this city, with symptoms of so alarming a nature, in the estimation of some of his friends, who had resided in the South and witnessed what are there called *congestive fevers*, as to excite the apprehension that this too was a case of congestive fever, and to prompt the interrogatory, "do you not think it is so?" The gentleman had traveled several days and nights in a stage, had lost rest and eaten but little on the route. He was withal constipated, and very plainly a sick man. It was in the hottest weather of September, that I found him laboring under general uneasiness; sick stomach, a pulse bounding, yet readily yielding to pressure; hot skin, tongue coated in the middle, head very painful, great thirst, feet below the ordinary temperature: My patient had been severely attacked in former years, very much in the same way, and his illness was rather protracted on these occasions.

The treatment pursued in this case was such as has been already described, and it was so successful, that there was no recurrence of the febrile attack at all, and in two or three days my patient was able to go into the country. It is proper to notice here, that this gentleman alarmed his friends by the liberal use he made of ice. They supposed it to be wholly incompatible with the calomel: His experience and mine led to a conclusion different from theirs; and as in other cases that I had seen, so in this, there was no untoward consequence from the supposed incongruity. It is conceded that this patient indulged more freely in the use of ice, than I supposed to be necessary or proper.

I am well aware, that if there be not sufficient evacuations of the alimentary canal prior to the use of the sulphate of quinine, the latter will not prevent a recurrence of the paroxysm. But it will serve to sustain the strength of the patient and fit him to endure the requisite repetition of cathartic medicine, and thus it will have answered a good end. An occasional failure of the salt of quinine, for the reason stated, I have witnessed; but the advantage ultimately gained from it was much greater than the evils that would have flowed from neglect to administer it. There is seldom any difficulty, however, in effecting the desirable alimentary avacuations, as preliminary to the use of the tonic; and that too in the first twenty-four hours, as I know by abundant experience. Indeed there are some cases in which you may proceed to give the salt of quinine, if there be a remission, without a resort to cathartic medicine. Thus, I have met with patients whose strength had been reduced by previous and unnecessary purgation, who would have gained nothing, but rather lost by delaying to use the salt of quinine, on the ground of a necessity for the usual preparative treatment.

The popular error on this subject is, that "*the time for giving tonics has not yet come;*" an error that I feel sure, has given birth to three-fourths of all the so called congestive fevers of the South and West. I draw no fancy picture, when I say that many practitioners convert a simple form of Bilious Remitting fever, into the more malignant type of that disease, by relying on this false plea. They make

but feeble efforts to have the bowels evacuated, and their delay finds the patient laboring under a second or third paroxysm of fever. The cathartics given in the meanwhile, necessarily enfeeble the system, while the natural result of the repeated paroxysms is to increase that debility. Because the tonic is not as natural as nature itself, it is inferred forsooth, that more medicine must be given to clear out the bile; and this practice is continued for a week, or two or three weeks, until, if there be any remission at all, it is so short and undefined, as to be of comparatively small value. And now, perchance, if the doctor would go home and trust his paticnt to nature and a common-sense nurse, recovery might ensue, even under these untoward circumstances. Alas! the same error still marks his course, and the poor patient is often purged into the other world, on the pretext of getting rid of all the bile, and so preparing for a day far off in the future, when it may be a "proper time to give tonics."

Whatever be the true pathology of Typhoid fever, I pretend not to decide, as that is yet a mooted point among the ablest men in Europe. But I feel very confident, that much of the intestinal irritation met with in the protracted fevers of the South and West, which in their incipient states, were simple Bilious Remitting fevers, is owing to the perpetual stimulation of the tender mucous lining of the alimentary canal, by means of acrid cathartics, administered expressly to get rid of an evil, that has no existence.

In a monthly journal, there is not sufficient space to allow a full range on a subject so important as the one now under consideration. Indeed, it is not desirable to spend much time in mere verbiage, where the facts lie so near the surface, as to be susceptible of inspection. I beg of gentlemen, who have not tried the practice herein recommended, no matter for what reason, to lay aside their partialities and school predilections, for the purpose of giving it a fair trial. This is all I have a right to ask, and in pressing the subject, let it be understood, that I am not setting up a claim to originality.

Lexington Ky., September, 1843.

ART. III.—*Clinic of* PROF. HARRISON, Commercial Hospital, Cincinnati. *Lecture on the Importance and Mode of Prosecuting the Study of Clinical Medicine, delivered to the Class attending the Summer Lectures*, 1843.

GENTLEMEN: — As this is the last day during this year, of my attendance on the Hospital, I shall in addition to the remarks already made on the cases, and on the interesting specimens of pathological anatomy which you have had exhibited before you, solicit your attention to several points connected with clinical medicine.

You all know what is meant by the term clinical medicine — that it signifies bed-side medicine, or in other words, it comprises a knowledge of the symptoms, pathological character, and mode of treatment of disease, as made known and illustrated by the suffering diseased human system. Sight, hearing, touch, are to be kept sensitively alive at the bed side, in order to catch the lineaments of morbid action, and treasure up the varying phenomena in the memory. There is such a thing — and a most valuable acquisition it is — as an educated eye — *visus eruditus* — which is the result of discipline and practice. And so the senses of hearing and touch are susceptible of a training, which imparts readiness, keenness, and discrimination to their exercise at the bedside. But superior to all culture of the senses, there stands a necessary mental endowment under the guiding and quickening action of which the senses receive a capacity for successful investigation into the phenomena and nature of disease, that renders clinical observation fertile in the results of a sound and authentic experience. This mental endowment is the conjoint result of rational inquisitiveness, of patient inquiry, and of an analytic turn of mind. Now, rational inquisitiveness differs essentially from a vague and idle curiosity — such as that which we too often see impelling young men to run after, and wonder at surgical operations. Possessed of an anxious desire to learn, and earnest in your hope to elicit from each case something instructive that may aid

you in becoming good practitioners of medicine, ever endeavor after a larger measure of light, and greater advancement in practical knowledge. And carry this spirit of research with you through all your professional life, and never pass by any opportunity of acquiring more accurate and enlarged conceptions of medical truth.

There are opportunities in this hospital of acquiring a knowledge of clinical medicine, which years of observation in private practice will scarcely equal. Our post mortem examinations; — which afford a sort of *experimentum crucis* of the opinions formed respecting the nature and seat of the maladies of which the patients die — confer on this field of inquiry a special and prominent advantage. It is a matter of considerable difficulty in private practice to obtain permission, from the friends of the deceased, to make an examination of the body of a patient. Then, again, from the multitude and variety of the cases of disease seen in our wards the student derives a familiarity with the diversified forms and aspects of morbid action. Although the season till recently has been healthy, you know that a very considerable number of cases of disease has been exhibited to your observation. In the medical wards we have averaged from thirty-five to forty-five patients, exclusive of the insane who number upwards of forty, each day. Recently, from the prevalence of the epidemic catarrh, or influenza, and the more frequent attacks of cholera morbus and dysentery, our wards have been literally overflowing with patients. The incurable and chronic cases, such as consumption, palsy, epilepsy, etc., are not included by us in this notice of the number of patients in the medical wards. The surgical wards are equally well filled as are the medical, and the able Professor of Surgery has, besides exhibiting to you twice a week many chronic ulcers, shown you fractures and dislocations of high interest. His operations in the hospital have this spring and summer been of a very instructive character. Fractures have been set, dislocations of long standing reduced, tumors removed, and eyes operated on with his accustomed dexterity and skill.

Gentleman, the science and practice of our profession requires time, assiduous industry, and the bes opportunities, that it may be

cultivated with due success. It is no slight, superficial work in which we are engaged when we attempt to penetrate the mysteries of disease, and interpret the confused language of disordered nature, that we may seize hold of the true indications of cure, and apply appropriate correctives to the irregular train of diseased action.

There is abroad in the profession an earnestness, and concurrence of effort at once honorable to humanity, and full of augury for the rapid advancement of our science in the high road of improvement. And among the other modes of cultivation of the science and art of healing, none stands forward with a brighter prominence than clinical medicine. Attached to all the eminent schools of medicine in Europe, and in the eastern portions of our country, hospital practice, receives that attention which belongs to its intrinsic merits and advantages. If you will consult Andral's Clinique, and Stokes' and Graves' Lectures, you will at once be made sensible of the rich and varied fruits to be gathered from this field.

There are three methods of teaching clinical medicine; — one of which may be called the empirical; the second, the inductive; and the third, the deductive.

The first method, the empirical, taxes the memory of the learner in an especial manner. By its order of procedure a case of disease is taken up; — the phenomena are examined, and the case pronounced to be, perhaps, fever, or dysentery, or some other affection. Then depletion, or a mercurial cathartic, or some other remedial measure is directed, with no explanation of the real pathology of the disease, nor is the reason, why the remedy prescribed is exhibited or given. By such a plan the student may learn that bleeding is good in fever, but he can never by such a mode of instruction acquire correct therapeutic principles.

The second method, the inductive, consists in a faithful examination, of the symptoms of the complaint, with a strict reference to their origination, or the particular condition of the organs whence the symptoms are derived; and in determining on the treatment keeps in fixed view the curative indication before the mind. The clinical teacher, who conducts his investigations on the true inductive process,

never permits himself to prescribe a remedy without some distinct object in view. And, after establishing his prognosis he will explain to the student in attendance on his clinical teachings, the nature and seat of the disease, and the special indications presented, with the correspondent remedies capable of fulfilling them. Thus, suppose we have a case of dysentery before us. Two characteristic symptoms present themselves in this affection, — tormina and tenesmus — one referring to the colonitis and the other to the rectitis, invariably present in dysentery. Indeed, the mucus inflammation of the colon and rectum constitute the disease: — they are its proximate cause, according to the language of the older writers. So far so well, but now the question comes up, what is the indication of cure in the case. Why, you say, to be sure to reduce inflammation. You are right, but yet active depletory measures cannot be so promptly employed in dysentery as in some other forms of inflammation, nor can tartar emetic be given in the disease with the same freedom as in inflammation of other parts of the body. Besides, the patient in dysentery endures poignant agony, which you are desirous of alleviating, if such alleviation can be obtained without detriment to the ultimate safety of the patient.

The enlightened clinical teacher who explains these and kindred points will guide the student along the path of a sound, and discriminating, and scientific acqaintance with the pathology, and true methodus medendi of disease, whilst the mere empirical teacher will only conduct his feet along a darkling way of routine.

But, in my conception, the zealous and cultivated clinical teacher should rise higher than even this correct and safe inductive mode of instruction. By a combination of the deductive with the inductive method, he may be able to stand on a superior vantageground, from which a broader range of demonstration will offer itself. The subject is dysentery — the teacher has commented on its seat, the colon and rectum,—and has expatiated on its pathology, inflammation, and in addition, has directed the attention of the student to the indications to be fulfilled; — these are the subdual of the inflammatory actions going on in the mucous coat of the large in-

testines; — and by vascular depletion to a limited extent, with mercurial and other mild cathartics, to promote the secretion of the liver, combined with opiates to abate irritation. Anxious to open a still more ample prospect before the inquiring mind, the clinical instructor will advert to the general laws of morbid action as modified by texture, and by some general reflections on the case, impress on the mind of the medical student the doctrines of inflammation, and the therapeutic indications which spring out of them. It may be objected that such a mode of teaching clinical medicine would lead to interminable digressions. But if the lecturer will only study his cases well in all their bearings, and present but a few to the consideration of his learners on each day of his visit to the hospital, no such objection can with justice lie against the plan. By the inductive mode we study the individual case; — we individualize the disease — and this method is primary and all important; it constitutes the only first groundwork for the cure of disease. But by the deductive method we generalize the disease, and elevate our minds to a just comprehension of the true principles of practical medicine.

Ever keep in view the indispensable importance of having your judgments enlightened; — being thoroughly indoctrinated into the elements of general pathology, and general therapeutics, and let each case of disease you witness be made to contribute to the building your minds up in a firm and well-adjusted scheme of doctrines that will enable you with promptitude and precision to discover the nature and seat of each new attack of disease as it comes before you, which alone will justify a confiding public in placing a high estimate upon your scientific knowledge of diseases, and your skillful appropriation of remedies for their removal.

ART. IV.—*Report of the Medical Missionary Society's Hospital at Macao, China,* 1840—41 — *By* WM. B. DIVER, M. D.

IN July, 1838, the Society's Hospital in Macao, as mentioned in a former report, was first opened for the reception of patients. It was

closed on the 5th of October following, in consequence of the absence of a medical officer to take charge of the establishment.

On the first of July, 1839, it was re-opened; but owing to the extraordinary events of that year, it was found necessary to suspend its operations on the 15th of the subsequent month. During that short space, 169 patients applied for medical aid.

Although medicines were administered for some months afterwards to occasional applicants, the doors of the hospital were not again thrown open to receive either in or out patients until August, 1840. From that time, the benefits of the institution have been conferred without much interruption on all who applied. The cases that have come under treatment have been various; but, as will be seen from the subjoined list are chiefly surgical. A few of the more important ones were admitted into the wards, and if their circumstances required it, a small allowance of money was granted to buy food and fuel. Many more would gladly have availed themselves of the convenience the wards offered, had it been considered expedient at the time to receive them. The diseases which came under notice differed in no essential particular from those of England and America.

Of the diseases of the eye, which form such an essential and important class of the maladies of the Chinese, catarrhal and chronic ophthalmia, acute conjunctivitis, granular lids, entropium, pterygium and trichiasis, seem to be the most general. These ophthalmia, which the native physicians appear never to attempt to remedy, from neglect or irritation usually excite a varicose state of the vessels of the conjunctiva and a thickened vascular condition of the cornea and tarsi, terminating in opacity, leucoma and final loss of vision. In the catarrhal and acute ophthalmia, although the practice of employing local stimulants is not recommended by some high authorities in ophthalmic surgery, yet the use of the nitrate of silver, from 5 to 10 grs. to an ounce of distilled water has been found very successful, joined with aperients in their treatments; strong solutions also of subacetate of lead, and sulphate of copper and zinc, have proved of the greatest service in the chronic ophthalmia with granulations and opacity.

Cutaneous diseases also form a principal part of the diseases of the Chinese. *Pustular Scabies* affects the lower orders to a great extent, and although often formidable in its appearance, is rapidly cured by the application of sulphur with some oxide of mercury. A similar kind of treatment has been very successful in curing *Psoriasis annulata.*

The ulcers enumerated, include ulcerations succeeding wounds, injuries, and other causes, affecting different parts of the body, but chiefly the enferior extremities. They are very numerous among the working classes, arising, probably from the heavy weights borne, a poor vegetable diet, or want of cleanliness.

From neglect and inappropriate applications, they often become large and indolent, but by means of ablutions and dressings of warm water, escharotic solutions and stimulating ointments, they speedily assume a healthy appearance.

August 20th.—A native was brought into the hospital with a gunshot wound of the thigh, received during the engagement which took place the day previous between Her Britannic Majesty's troops and the Chinese stationed at the Barrier. The ball entered the anterior and upper portion of the thigh, passed close to the femoral artery in a transverse direction, and lodged in the adipose tissue under the skin on the opposite side. An incision was made over it, and the foreign body extracted without difficulty. The wound thus made was kept patulous a few days with a small strip of lint covered with simple cerate, to allow of the discharge of sloughs which came away and left the passage clean. Healthy granulations formed; the wound healed, and the patient was discharged.

September 19th.—A man entered the wards with a gunshot wound of the foot, received during the *Battle of the Barrier.* The ball entered the sole as the foot was raised in the act of running, and passed through, injuring in its course the small bones of the instep.

The patient, upon being informed of the true state of the case; that time and patience were requisite to allow an opportunity for cure, expressed himself dissatisfied, and soon after was removed by his friends.

In April, a patient was admitted with a gunshot wound of the leg: he stated, that he received the shot from a Portuguese soldier who suspected him unjustly to be a thief. It was followed by much hemorrhage and pain. A native friend, seeing the ball near the outlet of the wound forthwith by a gash cut it out. About two days afterwards, he came to the Hospital. The ball had entered posteriorly by the side of the tendo achillis, two inches above the inferior extremity of the fibula, leaving a round, ragged wound, and, comminuting that bone, remained flattened and uneven at the surface of the wound in front. The incision which had been made to extract it, was three inches in length, parallel and close to the anterior tibial artery. Several loose portions of bones were removed, warm water dressings applied, the leg bandaged, and its position fixed.

The wound quickly granulated and healed, with the exception of a sinus anteriorly, which was kept open by portions of loose bone still left deeply in the wound. These gradually becoming more superficial, were taken out with little injury to the soft parts: in a month, the patient was dismissed, the leg being straight and strong.

In September, a boy aged 16, from the country, was admitted as a patient, with three large sloughing ulcers in the leg. His health was impaired, and his pulse quick and feeble; therapeutic agents were administered, and the ulcers at first poulticed, aud afterwards dressed with solutions of nitrate of silver and sulphate of copper, and the ordinary stimulating ointments, but no benefit followed their use; on the contrary, the ulcers assumed a phagedenic character, and attended with irritative fever; other remedies, also, equally failed in checking the progress of the ulceration. Opium, dissolved in nitric acid slightly diluted was now applied, and happily, produced an immediate change; the deep sloughs of muscle, nerves, and vessels were thrown off, and all the sores presented a healthy, granulating appearance. The warm water dressing, with the occasional use of sulphate of copperin solution, now speedily healed them.

The abscesses usually met with are large and chronic. Those of the scalp are frequent. Carbuncles, which are so common

in hot climates, often come under treatment. Rheumatism is frequently met with, arising probably from the usual causes of cold and damp in winter.

Wounds and contusions have been numerous: some have been severe from attacks by pirates. The chief character has been lacerated and superficial.

In September, a man aged 40, from the Island of Hanan, near Canton, entered the Hospital, suffering excruciating pain from retention of urine. In examining the patient it was discovered that he was frequently subject to these seizures, but they were of short duration compared with the present, which had existed three days. The bladder was readily recognized, distended with fluid, and rising up to the umbilicus; the pulse quick, and countenance anxious. The urine was immediately drawn off by the catheter, it was dark, of strong ammoniacal odour and exceeded two quarts. The next day it was necessary to repeat the operation, and for many days afterwards, changing the size of the catheter. The prostute was five times its natural size, and the urine deposited large quantities of thick, white sediment, which, on examination was found to be chiefly the magnesio phosphates. Active purging, with the daily use of the catheter, in three weeks restored him to his usual health; he returned subsequently to offer thanks and continued well. As future attacks might reasonably be expected, a silver catheter was made for him at his own expense, which he learned how to use. Other cases of retention stricture, or enlarged prostate, have been similarly treated; with the warmest thanks for the relief imparted.

Two cases of dislocation, one of the humerus into the axilla, and the other of the first plalanx of the thumb upon the arterior surface of the metacarpal bone may just be noticed.

A few interesting cases of thickening and deposition of serum in the cellular tissue of the leg, greatly distorting its size and shape have been treated successfully, with stimulating liniments equal and continued pressure by rollers, and saline aperients. But as soon as the pressure is removed, and the patients begin to walk, the disease has a tendency to return, and the integuments thicken a d become hard, as in elephantiasis.

Some cases of enlarged spleen have come under observation, but too few at present to remark upon.

From the many opportunities that have presented, in the effects of *opium smoking* upon the Chinese, some allusion to it may be expected. It is the unbiassed conviction of observers, that its habitual use is injurious to the health and happiness of those addicted to the practice. Its baneful influence is insidious, but certain, and its moderate indulgence, lays the foundation for its continued and increasing use.

The three cases of poisoning mentioned in the list, were produced by swallowing large doses of the extract of opium, under the influence of excited feelings; two were dead before remedies could be employed; the other a young female, recovered, having vomited the opium before it could be absorbed into the system.

Register of diseases treated in the M. M. S. Hospital, Macao, China, from August 1840, to July 1841.

DISEASES OF THE EYE.

Catarrhal opthalmia,	35	Epiphora,	6
Chronic opthalmia	21	Hypopium,	3
Conjunctivitis, acute and chronic.	38	Glaucoma,	1
Cataract,	22	Iritis,	6
Entropium,	16	Nyctalopia,	4
Ectropium,	4	Synechia posterior,	1
Granular lids,	43	Closure of pupil,	2
Opacity of cornea,	35	Loss of Vision,	11
Ulcers of cornea,	8	Diseased eyelids,	11
Staphyloma,	5	Conical cornea,	1
Pteryguim,	28	Ptosis,	1
Leucoma,	10	Tumor of upper lid,	1
Trichiasis,	18	Enlarged caruncula,	1
Amaurosis.	12	Abscess of lachrymal sac,	1

DISEASES OF THE SKIN.

Scabies,	97	Herpes,	7
Psoriasis,	47	Bullæ,	1
Lepra,	7	Ichthyosis.	1
Impetigo,	9	Erysipelas,	1
Porrigo,	9		

DISEASES OF THE CHEST.

Acute Bronchitis,	2	Catarrh,	33
Chronic Bronchitis,	17	Asthma,	2
Hœmoptysis,	8	Chronic laryngitis,	1

DISEASES OF THE DIGESTIVE ORGANS.

Dyspepsia,	30	Inguinal hernia congenital,	1
Ascitess,	4	Umbilical hernia congenital,	1
Diarrhœa,	15	Hæmorrhoids,	7
Enlarged Spleen,	5	Constipation,	6
Inguinal hernia,	4	Gastrodynia,	2

DISEASES OF THE URINARY ORGANS.

Retention of urine from enlarged prostate or stricture,	10	Ulcers of prepuce and glans penis,	6
Hydrocele,	8	Bubo,	8
Diseased Testis,	5	Dysuria,	3
Phymosis, (congenital)	2	Gonorrhœa,	9

DISEASES OF THE UTERINE SYSTEM.

Amenorrhœa,	3	Prolapsus Uteri,	1
Suppressio Mensium,	2	Inflammation of the Pudenda,	4

GENERAL DISEASES.

Ulcers,	220	Anasarca,	17
Abscesses,	70	Thickening of celular tissue of leg,	11
Carbuncles,	19	Cachexia,	9
Rheumatism,	96	Diseased cervical glands,	18
Lumbago,	6	Varicose veins,	11
Intermittent and Continued fever,	13	Enlarged Thyroid gland,	6
Cynchia,	14	Inflammation of tendo-achillis,	7
Whitlow,	7	Encysted tumors of face,	2
Arthritis,	18	Ganglia on tendons,	4
Morbus coxarisis,	5	Poisoning by extract of opium,	3
Dislocations,	4	Deformity of Bones of foot,	1
Necrosis and caries,	9	Anomalous or unnecessary to name,	64
Exfoliation of the lower jaw,	4	Vaccinations numerous, but not recorded	
Do. of the outer table of the skull,	1		

GENERAL SUMMARY.

Ophthalmic diseases,	342	Wounds,	41
Cutaneous diseases,	191	Contusions,	35
Pectoral diseases,	75	General and local diseases not classified,	725
Urinary diseases,	51		
Uterine diseases,	10		
	669		801
			669
Total,			1470

ART. V.—*Remarks on the Use of Aqua Ammonia in Dysentery*—*By* G. VOLNEY DORSEY, M. D., of Piqua, O.

ALL facts which tend to enlarge the sphere of our knowledge, with regard to the utility or application of medicines in the cure of diseases, are at all times valuable to the profession. It frequently occurs, that a medicine is long in use for particular purposes, and practitioners accustomed to regard it as beneficial only within the limits to which previous information has confined its use, have never thought of extending it to diseases in which it has never been recommended. Such is the relation sustained by the article of Ammonia to Dysentery; — long used as a powerful stimulant, both externally and internally, a corrector of acidity, etc., it was yet considered as possessing but little power in controlling actual diseased states of the system, and least of all, as being applicable to any disease so decidedly inflammatory in its nature as dysentery, or acute mucous enteritis. There are, however, many medicines whose beneficial effects in controlling inflammatory action in the system we are unable fully to understand; such are the terebinthinate remedies in inflammation of the intestines, cantharides in inflammation of the bladder, and many others whose utility could never have been inferred from an *a priori* course of reasoning. Experience is always paramount to theory in medical subjects, and facts which we may not be able fully to explain, may yet be valuable, and worthy of the greatest attention; indeed, to speak with critical accuracy, we do not fully understand the modus operandi of any medicines on the living system, and every day proves that use and experience alone can give us full confidence in the curative powers of any remedy in any particular form of disease.

Had I not seen the most full and conclusive evidence of the utility of Ammonia in Dysentery, both in my own hands and in those of other persons, I should not recommend it to the notice of the profession; but after having used it for seven years, in an immense number of cases, with the most unequivocal benefit, I cannot hesitate to pronounce it a remedy of most valuable powers.

I was first led to the use of this remedy in the treatment of an exceedingly severe epidemic dysentery, which visited this place in the summer and fall of 1835. I have extensive notes taken at the time, of the progress and treatment of this epidemic; and I find by referring to them, that previous to the use of the Ammonia all the common remedies had been exhausted, and in many cases without benefit. This was especially true in cases of children, where the excruciating pain, and tenesmus, too often ran their course to inflammation and gangrene, in spite of the best directed efforts for relief. Emetics, cathartics, venesection, the warm bath, calomel and opium with ipecac., antimonials, Mosely's Dysenteric Preparation, had all been tried, as well as many other remedies sanctioned by the highest authority; and although we could generally succeed in the relief of adults, many children had died from the full and unchecked effects of the disease. This difference seemed to me attributable to the greater irritability of the infantile system, indicated by the excessive pain and continued tenesmus, frequently having seen children passing more than half their time on the close stool, in unavailing efforts to evacuate the bowels; and this in spite of the opiate enemata, suppositories, etc., usually found to afford relief. Under such circumstances, what was to be done? what, from a strict consideration of the possible pathology of the disease, but to pursue a totally different course. Active diffusible stimuli, such as might at once arouse the torpid capillaries of the system, seemed the only resource. They were tried; and never was benefit more prompt or more signal. After the operation of an emetic and cathartic, or frequently after simply cleansing the bowels by a dose of Castor Oil, on the surface of which was sprinkled from 12 to 20 grs. of calomel, the following prescription was given:—℞. Ol. Sassafras, gtt. xij; Ol. Rosmarin., gtt. x; Aqua Ammon., pur., ℥ss; M. Of this preparation, which it will be seen is nearly the same as the Spir. Ammon. Aromatic, with a larger proportion of the essential oils, about gtt. x in a little cold water, was given to a child of two or three years, every two hours, interposing between each dose a pill of calomel, opium, and ipecacuanha, suited to the age of the patient. While using these the patient was kept mod-

erately warm, and diluent drinks freely administered. The effect of the first dose of the drops was an almost instantaneous relief of the pain and continued tenesmus; the heat of the body was more equally distributed, the extremities became warm, the skin moist, and the patient soon fell asleep, or remained perfectly quiet and easy. In a few hours the discharges were completely checked, and seldom reappeared till induced by medicine, when they were generally found more favorable and healthy in aspect; the medicine having not only checked, but corrected the secretion. Under this treatment every patient recovered; those who had been reduced very low previous to the use of these means, gained ground gradually, but with those who were quickly put under such treatment, the amendment was remarkably rapid.

So extensive an epidemic of Dysentery I have not since been called to treat, but in the sporadic cases occurring every year among us, I have used the same treatment with uniform success. In obstinate cases of diarrhœa in children, in Cholera Infantum, in which latter disease the Spir. Ammon. Arom. is recommended by Underwood, I have also witnessed excellent effects from its use; but I have never seen anything like its instantaneous and almost magical effects, in the relief of the pain and tenesmus of acute dysentery.

A few words by way of remark on the above facts. Dysentery is essentially an inflammatory disease, — the fever, the appearance of the tongue, the hemorrhage, the increased mucous discharge, all attest its inflammatory nature. All these were present in the above-named epidemic. Fever is the reaction of the system from the impression of some irritation — as a general rule, the more violent the irritation, the more violent, also, the reaction, yet certain morbid impressions appear almost to destroy the power of reaction;—the fever in our cases was rather slight, and it was not found necessary to employ the stronger antiphlogistics, to a great extent. But we are so accustomed to treating inflammations by antiphlogistics, that we can scarcely be persuaded that any other method is proper. If, however, we might be allowed to judge of the pathology of these cases, we should say the inflammation was *asthenic*, the irritation was an irritation of debility. The effect of the diffusible stimulus was to invigorate the intestinal ca-

pillaries, diminishing the irritation and consequently the afflux. The fluids which had been unduly determined to the living membrane of the intestines, now no longer carried thither by the irritation, resumed their natural course; the secretion of urine, often totally suspended, was renewed; the skin resumed its action, and the intestines no longer overburdened with a load not their own, commenced once more to perform their proper operation.

I have called this an asthenic inflammation. I am well aware of the objections that may be raised to this term; the words indeed imply, as Andral has observed, "a manifest contradiction,"—but I have used them because they will be generally understood, and because the term asthenic hyperæmia would not convey a just idea of the facts;—the afflux not being in all cases sanguineous, it was more properly an asthenic hypercrinia, or an excess of secretions poured out through the weakness of the parts. In such cases, the only use of purgatives is to carry off the superfluous mucous of the intestines; mercurials are beneficial in correcting the deranged action of the liver, but the ammonia, by its peculiar stimulant action, will then immediately remove all pain and tenesmus, check the morbid secretions, and assist the bowels in regaining their healthy state.

BIBLIOGRAPHICAL NOTICES.

Art. VI.—*The Class Book of Anatomy, explanatory of the first principles of Human Organization, as the basis of Physical Education; designed for the use of Schools and Families: with numerous Illustrations, and a Vocabulary of Technical Terms—By* Jerome V. C. Smith, M. D., Editor of the Boston Medical and Surgical Journal, and formerly Professor of General Anatomy and Physiology in Berkshire Medical Institution. Seventh improved Stereotype edition. Boston: Robert S. Davis: 1843. pp. 286.

One of the most obvious and pernicious effects in our system of education is, the almost total neglect of the study of anatomy and

physiology. Nothing can be more apparent than a necessity for incorporating in the elementary education of both sexes, a general knowledge of the human organization, and the laws by which it is governed. Yet strange as it may seem, and much as it may be doubted fifty years hence, (such is the onward rush of knowledge) pupils are taught every branch of learning, useful and useless, with the solitary exception of anatomy. There is sufficient beauty intrinsically, in anatomy and physiology to repay the pupil for the labor in acquiring these branches of learning; but when we contemplate the subject in its relations to hygiene, it grows into importance paramount to every other department of science. Many of the disastrous consequences, resulting to both sexes, from violations of natural laws relating to diet, dress, exercise, and the various influences of the passions and mental emotions, would be entirely obviated by teaching, in all our institutions of learning, the elementary principles of anatomy and physiology. It need not be supposed that it would prove a disgusting or irksome study; on the contrary, we have no hesitation in affirming, that it would become one of the most fascinating studies in the whole circle of science. We hope to see the time, when those having the educational control of our youth will give to these branches that attention which their great importance demands.

Dr. Smith's book is well adapted to the instruction of the young pupil, and should be introduced into every school and family. The work is sufficiently systematised, and is well written. We think the public are under great obligations to the talented author for the labor spent in furnishing this system, which we trust may prove an additional incentive to the study of these useful branches of learning.

ART. VII.—*The Principles and Practice of Medicine—By* JOHN ELLIOTSON, M. D., etc., Edited by *Nathaniel Rogers*, M. D., and *Alexander Cooper Lee*. First American from the second London Edition, greatly enlarged and improved. With Notes, and additions by *Thomas Stewartson*, M. D., Physician to the Pennsylvania Hospital. Philadelphia: Carey & Hart. 1844. pp. 1046.

DR. ELLIOTSON's work on Practice has gained no inconsiderable popu-

larity both in England and America; and as the profession seldom err *en masse*, we are put in possession of presumptive evidence in favor of the production. The author is evidently a clear-thinking, well-informed physician; and however much he may be contemned for his adhesions to certain equivocal doctrines of the day, as a physician and writer, we must concede to him fine talents, clear conceptions, and a suitable style for works of this class.

Thirty-three pages of Dr. Elliotson's work are devoted to *General Pathology*, a subject frequently too little thought of by practica writers. This part of the work is considered under the following heads: — The nature of disease; general nosology; ætiology; semeiology; general treatment of diseases; methodical nosology. The main body of the work is divided into three parts — 1. *General Diseases*, such as inflammation, hemorrhage, dropsy, etc; 2. *Universal Disease*, as anæmia, chlorosis, scurvy, and fever; 3. *Local Diseases*, as all the cutaneous diseases, diseases of the nervous system, of the respiratory organs, heart, urinary organs, fibrous tissues. These general kinds are subdivided so as to include every species of disease. Although the general divisions adopted by Dr. E. are obnoxious to criticism, for example, classing inflammation as a general disease, chlorosis as a universal disease, and scarlet fever as a local affection; still this defect does not interfere with the proper elucidation of the various diseases, which indeed, is generally performed in an able and satisfactory manner.

The principal additions by the American Editor, Dr. Stewartson, are on Remittent and Yellow fevers. These chapters are well written, and very essentially enhance the value of the work, especially to the American physician.

In his introduction to the work, Dr. E. thus testifies in relation to the influence of periodicals in advancing his interests:—"For many years I toiled, and saw most of my contemporaries,—many of my juniors (who worked less, but were wiser in their generation) pass by me. I published work after work,—edition after edition; and paper after paper was honored with a place in the transactions of the first Medical Society in Europe. I was physician to a large Metropolitan hospital; and had attended there, and

out of doors, above twenty thousand patients. But in vain. In the year 1828 my profession was no more lucrative to me than in 1818, and was as short of my actual expenses. At that time the "Lancet" was pleased, now and then, to publish a clinical lecture, delivered by me at St. Thomas'; and my practice at once doubled. The following year it published the greater part as I delivered them; and my practice doubled again. Next season the "Lancet" published them all; the "Medical Gazette" followed its example; and my practice doubled a third time."

We would strongly commend Dr. Elliotson's Practice to the notice of the profession, as an elaborate, well written, and, in the main, correct system of practical medicine. For sale in this city by Messrs. Desilver & Burr, 112, Main St.

ART. VIII.—*Pathological and Surgical Observations on the Diseases of the Joints*—*By* SIR BENJAMIN C. BRODIE, Bart., F. R. S., etc. From the Fourth London Edition, with the author's alterations and additions. Philadelphia, Lea & Blanchard, 1843. pp. 216.

THE fourth edition of this standard work on diseases of the joints, seemed to be called for, as we are informed in the preface, to give publicity to new matter which the author had collected, and new modes of practice, more efficient than the old, which had been confirmed by experience. The improvements are most manifest, in this edition, in relation to the constitutional treatment of local diseases. The experience of the author has taught him to rely measurably on therapeutical agents operating through the medium of the constitution, and that the most simple local means should be preferred to the more complicated and active applications. A note has been appended to this volume, on ulceration of the articular cartilages, controverting, in part, the views of Mr. Key.

We apprehend the work of Sir Benjamin C. Brodie will long remain a standard treatise on diseases of the joints; and while we admire the correct application of principles, regulated by the experience of the author, we are also forcibly impressed with the modest, unostentatious style, as exhibiting no mean evidence of merit. For sale by Messrs. Desilver & Burr, 112 Main St.

THE WESTERN LANCET.

CINCINNATI, DECEMBER, 1843.

CRITICAL DAYS AND PERIODICITY IN DISEASE.

In a paper from Dr. Laycock, read at a meeting of the British Association for the advancement of Science, the position is assumed, "that in animals changes occur every three and a half, seven, fourteen, twenty-one, or twenty-eight days, or at some definite number of weeks."

The doctrine of critical days and periodicity, dates back to the earliest periods of medical learning. Hippocrates held the opinion, that in all fevers, a material change was likely to occur on particular days; and these critical days were associated with certain supposed pathological conditions, such as the concoction and despumation of morbid humors. The pathology, however, of the Greek school has been measurably abandoned, but the doctrine of critical days is still adhered to by many modern physicians. Hippocrates regarded the 3rd, 5th, 7th, 9th, 11th, 14th, 17th, 20th, and sometimes the 4th, 6th and 21st, as critical days. According to this arrangement there would be a liability to change every day during the first week, every second day in the second week, and every third day in the third week. Hence, a continued fever, in a three weeks course, would be governed by the different types of an intermittent; for example, during the first week changes are liable to take place every day, which would represent the quotidian type; in the second week these changes would occur every second day, representing the tertian type, the crises taking place on the 9th and 11th days; and the 13th would also be included but for the intervention of the quartan type, which, therefore, brings the changes of the third week on 14th, 17th and 20th.

The doctrine of Hippocrates, however, met with early opposition, especially from Asclepiades and Celsus, who maintained that the data upon which these views rested were erroneous, and that the changes specified did not occur. But subsequent to the period of these distinquished authors, others, not less renowned for their acumen, have been found advocating the doctrine of critical days, among whom many be named De Hean, Cullen, Fordyce, etc.

Medical astrology was summoned, at one period, as explanatory of these phenomena, and we find Dr. Mead, Dr. Darwin, and Dr. Balfour zealously engaged in defence of celestial influence as the proximate cause of the crises. Dr. Balfour imagined that a sol-lunar influence was exerted when the sun and moon were in conjunction, which produced paroxysms, or exacerbations in fevers; and as these bodies separated, a critical change was likely to occur, and the disease yield. These extravagant hypotheses, however, are but little countenanced at the present time, although the learned Dr. Good evidently gave some credence to medical astrology.

Dr. Laycock, in the paper alluded to, enters upon the defence of critical days; and various diseases are introduced as exhibiting the periodical phenomena. Thus, smallpox is divided into four stages;—first, the febrile, from the first day to the fourth; second, the eruptive, extending to the seventh: third, the suppurative, from the seventh to the eleventh; and fourth, that of desication, from the eleventh to the fourteenth or fifteenth.

In measles and scarlatina the eruption makes its appearance on the fourth day. Intermittent fevers manifest the phenomena of periodicity more distinctly than any other forms of disease; and the remittent and malignant fevers, depending, according to Dr. Laycock, on the same causes, display similar characteristics in relation to periodicity. If a remittent fever has the quartan type, and an intermission happens on the fourth paroxysm, the amendment will take place on the eleventh day, a mild paroxysm may occur on the thirteenth, and final amendment on the fourteenth. If an intermission occurs after the fifth paroxysm, the fourteenth would be the critical day; if after the sixth, the seventeenth, would be critical, and if after the

seventh, the fever ends on the twentieth day. Whatever may be the type, there will be a paroxysm on the seventh day; and hence, that day is unusually fatal in febrile affections, and the fourteenth is equally remarkable as a day of amendment. A paroxysm of gout, periodic hemorrhages, nervous affections, etc., are supposed by Dr. Laycock to afford additional illustrations of the same law.

In adverting to the doctrine of *septenaries*, Dr. Laycock indulges in some most extravagant speculations. He denies that the doctrine of septenary changes originated, as has been supposed, with Pythagoras, but that it was obtained from the ancient Egyptians, or Chaldeans. He arrives at the conclusion, also, that the employment of the number seven, in the manner indicated, was closely connected with the principles of a science—a system of *vital proleptics*—now utterly lost, and depending on the observation of periodic vital or meteorological phenomena; and he adds—"If our meteorology and the knowledge of vital periodic movements were as perfect as our astronomical science, we might possibly be able to do that which Diodorus Sciculus asserts the ancient Egyptians could accomplish, viz: 'They frequently foretell what is to happen to a man throughout his life; and not uncommonly predict the failure of crops, or an abundance, and the occurrence of epidemic diseases among men and beasts; foreseeing, also, earthquakes and floods, the appearance of comets, and a variety of other things which appear impossible to the multitude.'" etc.

Upon the same system of crises, Ætius lays down rules for determining the day and hour of a patient's death. Thus, the *day* is prognosticated by noticing the critical day on which the disease is most violent; and the *hour* by observing at what time of the exacerbation the patient is most languid.

These are some of the views entertained on the subject of critical days, and periodical changes; many of which are so obviously extravagant as to be discountenanced by all enlightened and sound minds, while others are still believed by many physicians. We have not space to continue the subject further than to remark—that however much there may be an apparent foundation in physiology and

pathology for the doctrine of critical days, yet, as a general rule, it is impossible to make a practical application of these rules at the bedside — a defect totally subversive of its utility in medicine.

THE CHRONO-THERMAL SYSTEM. — The author of this system, one Samuel Dickson, M. D., "late a Medical officer on the Staff," has issued from the London press an 8vo. volume of 328 pages, in which he attempts to vindicate his doctrines, and to destroy the established system of medicine. The author launches into the tempestuous ocean of controversy, and with more wind than ballast, recklessly plunges forward, denouncing the medical profession as a body of swindlers, their system as composed of humbug, collusion, and tricks, and their views of therapeutics a mere romance. Drawing a full inspiration after this tirade of malevolence, which probably depended on mistaking his own character as a *chief d' oeuvre* of the party described, the magnanimous "Officer on the Staff" proceeds to delineate his own system of perfection.

The Chrono-Thermal system, contemplates all disease, as its name imports, in reference to *time* and *temperature*; the latter being the result of motion, and a certain space of time must be occupied by the motion. In the cure of disease, medicines operate by modifying motion, which they accomplish by virtue of certain electrical properties.

As if in perpetuation of the doctrine of critical days and periodicity, which we adverted to in the preceding article, and which Dr. Laycock has so ingeniously intermingled with the relics of astrology and incantation, Dr. Dickson refers all morbid phenomena to a series of alternate motions, each occupying a certain time for its fulfilment, some being momentary, while others are diurnal or even longer. Dr. D: also assumes, that there can be no motion without change of temperature, and that attraction and repulsion are the causes of these motions.

As deductions from these remarkable scintillations of philosophy, Dr. D. declares, that he believes life is a fitful fever, and that in-

termittent fever or ague "Is the type which pervades, and the bond which associates together every one of the so-called different diseases." Having thus summarily, but satisfactorily (to himself) disposed of the pathology of disease, and it having been fully settled "that ague is the type of all disease," no difficulty is experienced in designating the true chrono-thermal remedies. Thus, a plaster to the spine, by which its temperature is improved, will cure ague, and the same remedy will also relieve asthma. Curved spine readily yields, in Dr. D's hands, to calomel and quinine, and soap liniment. Scrofulous joints are cured with chrono-thermal remedies very speedily; also, inflammation of the brain, and other organs, in all of which cases, bloodletting is sedulously avoided. But two forms of disease have resisted the chrono-thermal remedies, and these are tetanus and hydrophobia. As to consumption it stands no chance at all with the Staff Officer's time and heat physic, as he modestly affirms that he has cured upwards of five hundred cases of this disease. The chrono-thermal remedies are supposed to operate by virtue of electricity, somewhat similar, perhaps, to a nostrum called Sherman's Pills and Plasters, which is supposed to establish a galvanic current between different organs. Dr. D. has our best wishes for a speedy removal of his delusion.

Treatment of Congestive Fever. — Dr. T. P. Albertson, of Darlington, Ia. states, in a letter to the Editor, that a severe form of fever has been prevalent in that vicinity, during the past summer and the preceding winter. The fever was of the remitting type, and generally known by the name of *congestive fever*. If neglected, or improperly treated, it often terminated fatally.

In the treatment of the disease, Dr. A. recognizes three indications: 1. To relieve the engorged or congested organs; 2. To moderate the excessive febrile reaction; 3. To break up the train of morbid associations. To meet the first indication, bloodletting, to the extent of producing syncope, was resorted to; and at the same time the following powder was given, as a purgative, and repeated every four or five hours, until it operated, viz: Calomel 10 grs.; ipecac.

2 grs.; nit. pot. 5 grs. Stimulating applications were made to the extremities. Nitre, ipecac., antimony, etc., were employed to meet the second indication; but the chief reliance was placed on the following compound, to be given during the remission. ℞. Sulph. quinine, gr. iij; morphine, gr. ⅛; ipecac., grs. ij. To be given every two hours. Dr. A. is of opinion that bloodletting is a highly important remedy, as most cases were fatal when this was omitted. He also regards quinine as essential to the cure, and administers that article whether there is an intermission or not, regarding a remission as a sufficient indication for its employment.

Clerical Prescriptions.—Dr. Brown relates in the London Lancet, an instance of clerical interference in a case of disease, which evinces on the part of the clegyman, more zeal than knowledge. Dr. B. had under treatment a case of eczema, which terrific name having been imparted to the patient, also soon reached the ears of the preacher. The preacher stoutly demurred to the correctness of the Doctor's nomenclature, and upon due reflection gave it as his opinion, that there was no such term as *eczema*, but that it was *exanthemata;* and at the same time assured the patient that he would recover, provided, he would trust in Jesus and keep his bowels open.

A physician in this city was recently treating a patient laboring under consumption, who was visited at the same time by her kind pastor. Things went on very harmoniously until, unfortunately, the preacher mistook himself for the doctor, and began prescribing physic in place of divinity, with the assurance that a cure would be accomplished. The medicine of the divine worked well with one exception, which was, that the hectic fever still continued. But the reverend doctor was not to be diverted from his grand object by the interposition of a paltry fever; and as it was not in the bargain to cure the hectic, the physician was again summoned to cure the fever, so that the preacher could cure the consumption. But as the medical man declined the proposed alliance in the case, the consumption remains uncured, owing to the violation of the contract by the fever.

DELIRIUM CAUSED BY ERGOT.—Dr. E. Daniels, of Indiana, has furnished to the editor some particulars of a case in which delirium and insensibility speedily followed the exhibition of Ergot. During the state of active delirium no contraction of the uterus took place, and as insensibility followed, instrumental delivery was resorted to, but the patient died within two or three days after delivery. Dr. D. was called in consultation, and is of opinion that the case would have terminated more favorably had the ergot not been given. He has observed in other cases the induction of delirium by the same remedy.

MCILHENNY ON MILK-SICKNESS.—No disease of the western country has elicted so much controversy, and such contrariety of opinion, as that of milk-sickness. Some doubt its existence, while among those who admit that a disease, *sui generis*, is produced by a virulent condition of the cow's milk, no uniformity of opinion prevails as to its cause. The disease is variously attributed to vegetable, mineral, and malarious poison. Hence, it is not surprising that new investigations should be instituted, and that an interest should be manifested in all that is published in relation to the cause, and treatment of this formidable malady.

Dr. McIlhenny's treatise, a pamphlet of twenty-two pages, discusses the cause, pathology, and treatment of milk-sickness. The author asserts his belief, that the *rhus toxicodendron* is the cause of the disease; and he also expresses the firm conviction, that this plant is totally distinct from the *rhus radicans*, or poison vine. Various distinctive features are pointed out between these two plants; and it is also stated that the radicans is often found where milk-sickness is unknown, but the growth of the toxicodendron, and the prevalence of the disease, are uniformly concomitant. The *pathology* of the disease, the author is of opinion, is essentially gastritis, with perhaps, an extension of imflammatory action to the duodenum. In the *treatment* the author rejects bleeding and calomel—two very potent remedies. Viewing the disease as imflammatory, he discards all drastic agents, and among these calomel, which he supposes

possesses at best but little purgative property. It strikes us, however, that a discrepancy exists between the pathology and treatment. If the disease is *gastritis*, we would certainly anticipate decided benefit from depletion, both general and local. The author relies chiefly on warm water injections, thrown high up into the bowels, by means of an elastic tube, and repeated until purgation is produced. Epispasties to the epigastrium are also recommended, and the occasional administration of yeast, sulphur, cream of tartar, etc. The removal of constipation, which is a *sine qua non* in the treatment, is supposed to be accomplished with more certainty by the warm water injections, than any other means, as the scybalous matter, always found obstructing the bowels, is softened and discharged by the enema.

Many of Dr. McIlhenny's suggestions are good, and his pamphlet, therefore, will constitute a valuable addition to the milk-sick literature of our country.

Medical Classes.—The following are the number of matriculated students in the institutions named. In some instances we depend on reports, which may not be precisely accurate.

Medical College of Ohio, 186; Louisville Medical Institute, 230; Medical department of Kemper College, 70 to 80; Cleveland Medical College, 60 to 70; Willoughby University, 45 to 50; University of Pennsylvania, 400; Jefferson Medical College, 300; Harvard University, 140; Transylvania University, 214.

New Publications.—The forthcoming number of the Select Medical Library, for January, will contain Dr. C. J. B. William's Principles of Medicine. The April number will contain Dr. Robert Lee's Lectures on Midwifery. Barrington & Haswell, will also soon publish (we presume in the Library,) Stokes on the Chest, and the Student's Manual. The great value of the Select Library is too well known to require comment

THE

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ORIGINAL COMMUNICATIONS.

Art. I.—*Poisoning by Arsenic, and modes of Detecting it in the Animal body*—By Robert Edmonds Little, M. D., of Richmond, Ky.

The importance of a correct knowledge of the nature and means of detecting poison in the animal body is acknowledged by all classes of the profession; but how seldom do we find practitioners (especially among those residing in country situations) who are at all skilled in chemical analysis, or the detection of the numerous poisons resorted to by the suicide and murderer. Results, lamentable and disastrous, not unfrequently take place at the bedside, which might not have happened had the medical attendants been possessed of a knowledge of the symptoms produced by the different poisons and their antidotes—results, which justly place the seal of ignorance on their authors—impede their future career, and often, altogether blast their professional standing. Even in courts of justice our profession has suffered, because of the want of skill, and the vacillation displayed by some of its members, while undergoing an examination carried on by a shrewd attorney, who, solicitous for the safety of his client, is frequently more anxious to confuse and perplex than to elicit truth. Hence, the importance of being intimately acquainted with all the circumstances of the case in which we are to be examined; as the examiner, either from design or ignorance, may lead off the witness from the true point at issue, cause him to make concessions not in-

tended, and thereby overturn his evidence, and defeat the ends of justice. Truly there is no condition in which an individual can be placed, less enviable, than that of a medical witness, who unprepared for an examination, is thrown upon his own resources, and, without some fortunate event occurring, exposes himself to the pity of the court, and censure of his professional associates. While upon the other hand, the physician, who is capable of withstanding the attempts of the examiner, to brow-beat and lead astray, by being firm in his opinions, and avoiding conjecture where facts are necessary, places himself high both in the estimation of the court and the learned portion of the faculty.

As arsenic, in some form or other, is the article most usually resorted to by the murderer for effecting his fiendish intents, as well as, from its being often administered in mistake for some other remedy; it becomes the imperative duty of every physician, who wishes to take an honorable stand in his profession, to make himself thoroughly acquainted with all its effects — antidotes and means of detection. Being fully impressed with these views from reading the numerous trials for poisoning on record, and noting the differences as to symptoms and treatment; but more especially the contradictory results of the medico-legal examinations, the writer determined to follow up the researches of the older and more experienced members of the faculty. The object of the following pages is to record them, imperfect as they are.

Arsenic is alike deleterious to vegetable and animal life, although its effects are more injurious to some orders or families than others. It has the power of rendering seeds and buds when saturated with a solution of arsenious acid, incapable of germinating or expanding. There are some plants, however, which seem to resist its influence, at any rate to be but little affected by it; as a writer in a foreign journal states that he has seen algaceous plants develope themselves if not actually flourish in a solution of arsenic. (Gelgerkrant.)

By authors, who have written on the subject, arsenic is said to be poisonous to all animals without exception; but in this portion of Kentucky a different notion prevails among farmers. A disease called

the *kidney worm* during some years prevails extensively among swine: for the cure of which, arsenic is given in large and repeated doses without producing any injurious effect so far as is known. Horses seem likewise to be exempted in some measure from its influence; although, when long continued, they usually become its victims, death being preceded by frequent serous operations, loss of voluntary motion, and diminished susceptibility to the action of stimuli.—In all animals capable of vomiting, this symptom generally precedes the struggles of the *patient* while in *articulo mortis*. (Vet. Med. Jour.)

To man, arsenic is exhibited in a variety of forms for the cure of disease, and from the recorded experience of Hahnemann and his followers, (if faith can be placed in their assertions) it displays itself favorably in many diseased conditions of the animal economy;—and produces when given in homœopathic doses during a healthy state of the system a train of symptoms almost numberless.

Certain it is, that arsenic may be exhibited for a considerable length of time, in minute doses, without causing any decided symptoms of derangement; but finally, a sensation of heat in the throat œsophagus and alimentary canal generally, dryness of the surface, increased activity of the bowels and kidneys, lassitude, sleeplessness, redness and swelling of the eyes and face ensue, occasionally a peculiar cutaneous eruption, gastrodynia and ptyalism.—These are the principal symptoms observed by us, when given in the form of the arsenite of potash for the relief of intermittents, although others have not been noticed unfrequently as difficult respiration, cough, wasting oft he body, œdema, convulsive motion of the limbs, paralysis, falling off of the hair and nails, etc. etc.

The quantity of arsenic necessary to cause death is uncertain—a great deal depending upon concomitant circumstances. According to Dr. Hahnemann one or two grains may prove fatal within a few hours. Dr. Christison says "the smallest actually fatal dose I have hitherto found recorded is four and a half grains. The subject was a child four years old, and death occurred in six hours. In this instance the poison was however taken in solution."

When given internally in large doses as a poison, it produces three grades of effect:

1. Where there are gastro-enteritic symptoms with general depression of the muscular system, and the patient dies in from one to four days.

2. Where there are symptoms of decided narcotism, and death ensues in a few hours.

3. Where symptoms of gastro-enteritis, and disordered nervous action combined are observable; and the patient dies within twelve or fifteen days, or recovers altogether after the lapse of a considerable time.

In the first variety within an hour or two after the reception of the arsenic into the stomach, the patient complains of faintness, nausea, gastrodynia, vomiting of fluids various in character, at one time being bilious and again tinged with blood. Vomiting however is not an invariable symptom, usually there is great thirst, but an inability to swallow and not unfrequently a dread of fluids amounting almost to a hydrophobia. The unhappy sufferer is continually gasping for breath and complains of pain and tenderness of the bowels and in a short time afterwards diarrhœa comes on with a constant desire to go to stool. The activity of the kidneys is increased and there is a burning heat along the course of the urethra, with difficulty in passing urine. The constitutional symptoms are prominent and well marked, the pulse quick, feeble, and irregular, the tongue dry furred and aphthous, the countenance indicates misery and despair, and within four days the patient dies convulsed, or in a comatose condition.

To produce the second degree a large amount of arsenic is necessary. The inflammatory symptoms are absent, but in their stead derangement of the cerebro-spinal system exists, as manifested by fainting, convulsions, and finally, stupor. Here death takes place within six hours.

The third degree occurs in those who, having taken a minute quantity or vomited immediately are finally recovered. The first symptoms are barely inflammatory, when they subside nervous irrita-

tion presents itself indicated by convulsions, palsy, epilepsy, mania, hysteria, tetanus, etc.

The morbid appearances manifested after death are generally in accordance with the above named symptoms, varying as they do with the quantity of arsenic taken. In the first variety we have inflammation, second, sometimes softening, ulceration and gangrenous patches in the alimentary canal. The organs of respiration are reddened and congested. *Orfila* says, "Under certain circumstances the mucous membrane of the stomach and intestines is lined with a multitude of brilliant points, composed of fat and albumen; placed on burning coals these grains decrepitate on drying and produce a noise denominated improperly *detonation*: they inflame as a fatty body; when they contain a notable quantity of fat and exhale an odor of burned animal matter. These fatty and albuminous globules may be met with in the bodies of individuals who have not been poisoned and require attentive examination in order to distinguish them from arsenious acid. The best method to avoid this error is to digest these granular parts with water, and apply the tests proper for demonstrating the existence of arsenious acid."

The treatment of a case of arsenic poisoning is simple. Our first endeavor should be to dislodge the arsenic from the stomach by means of an active emetic — for instance the sulphates of copper or zinc. Tepid water must never be given to promote the operation of the emetic, as it renders the arsenic soluble and consequently more apt to be absorbed. This mistake has not unfrequently been made. It is related of one of the most eminent of the eastern faculty, that he once used warm water as an emetic to expel arsenic from the stomach, without causing vomiting — his patient as a consequence died. After the operation of the emetic it will be proper to administer an antidote, if antidote there be to the action of arsenic, which is denied by some who stand high in the chemical world, among whom may be mentioned Wm. Brande. But we believe from observation and the experience of others, that the hydrated sesquioxide of iron is capable of counteracting the poisonous effects of arsenic. The dose should not be so much in proportion to the quantity of arsenic taken as to the

violence of the symptoms present. To adults a large table spoonful should be given every five minutes until the active symptoms subside. The iron should be prepared by ammonia in preference to potash and given *moist* as its effects are much more speedy and certain than when dry. Its modus operandi is thus explained. The arsenious acid is converted into arsenic acid by robbing the sesquioxide of iron of oxygen, the peroxide changes to a protoxide and as a result a proto-arseniate of iron is formed which is insoluble and consequently inert. In the absence of the hydrated peroxide, Von Specs recommends the employment of substances in which it is known to exist as the rust of iron, and hæmatile, and, although they do not prevent all the bad effects, they are useful.

The question, Does not the sesquioxide of iron contain arsenic? has been started and discussed by some of the most able living chemists. It is a well-known fact that many of the sulphurets of iron, from the sulphates of which the sesquioxide is obtained contain arsenic. The following are the results of the examination of the peroxides by heat, and by precipitation conducted by Professor Orfila:—

1. I boiled during four hours, in five capsules, four and a half ounces of the hydrated peroxide of iron with four ounces of distilled water, and by Marsh's apparatus no trace of arsenic could be obtained.

2. I then added thirty grains of pure caustic potash to the hydrated peroxyde in each capsule but no trace of arsenic could be obtained.

3. But on treating by an ebullition of five hours an equal quantity of the hydrated peroxide of iron in pure sulphuric acid, the liquid of the capsules out of five gave arsenical taches.

4. Four portions of four ounces each of colcother of commerce, (the anhydrous peroxide of iron formed by heating the sulphate) obtained from different merchants, by ebullition for four hours in distilled water, did not give indications of the presence of arsenic.

5. This substance in the same quantity, by ebullition during five hours with strong sulphuric acid, gave large arsenical taches with the aid of Marsh's apparatus.

6. Thirty grains of colcother boiled with sulphuric acid, gave arsenical taches.

7. Fifteen grains, of the same body, treated in the same way, gave no indications of arsenic.

8. A solution of the sulphate of iron gave no arsenical taches with the apparatus.

Prof. Orfila concluded his experiments by giving a large quantity of colcother to three dogs and putting a ligature on the œsophagus to to prevent vomiting. They were examined in thirty-four, fifty, and sixty hours after. The internal organs exhibited no traces of arsenic. The fiuid of the stomach of the first dog killed, separated from the colcother, gave indications of the presence of the arsenic, as also did the second and third dog's but in a less degree. The urine of the first and third dog gave no signs of arsenic being present, while that of the second did. The above experiments of Orfila plainly demonstrate that arsenic exists in the peroxide of iron and colcother. Although the arsenic does not present itself unless acted on by means of a strong acid as in the third, fifth, and sixth experiments. When the peroxide is administered internally, the quantity of arsenic present in it seems to be slowly absorbed and eliminated by urine, not remaining in the organs of the body as has been supposed.

In medico-legal examinations, not only the fluids of the stomach and intestines, but also the different solid organs should be examined, so that no difficulty may arise in respect to question of the arsenic found in the former being deposited by the sesquioxide of iron.

In the absence of preparations of iron, milk, charcoal, white of eggs, etc., should be administered for the purpose of enveloping the arsenic, and protecting the stomach from its influence.

A strong infusion of the common tobacco is said to have relieved several cases of arsenic poisoning, without the production of sickness or vomiting. Its modus operandi in such cases we know not — possibly the two poisons coming in contact in the stomach form a *tertium quid* inert in its action.

MEANS OF DETECTION.—Arsenic when free and uncombined is without much difficulty recognised from other substances possessing a similar appearance; although most of the tests proposed are objec-

tionable, and have given rise to much learned discussion. In an examination of them we shall be brief, *utility* being our aim.

Volatility.—When heated by means of a spirit-lamp, arsenic sends forth a white smoke. This is a test not to be relied upon, as oftentimes organic substances are mixed with it, preventing its rising in the form of vapor: besides, oxalic acid and other articles are capable of emitting, when heated, a white smoke.

Odor.—When arsenic is deoxadized by means of heat, an alliaceous odor is perceptible. Here we must be careful that no organic substance be mixed with the arsenic, as it may so cover the garlic odor as to render it incapable of being distinguished. But even with this precaution the test is liable to deceive us, as there are many other articles, which, when heated, emit a similar odor.

Reduction by Heat.—This test is more certain than either of the preceding, and is performed in the following manner:—A small glass tube an eighth of an inch in diameter, into which the arsenic has been introduced with charcoal or black flax, is gradually exposed to the flame of a spirit-lamp until a metallic crust is afforded; this crust is then to be divided and subjected to the two former tests.

Ammoniaco-Sulplate of Copper.—This preparation with arsenious acid produces an arsenite of copper which is green. It is an uncertain test, because yellow organic matters when mixed with it give a green color notwithstanding the absence of arsenic; besides, its action is prevented by astringents.

Ammoniaco-Nitrate of Silver.—If to arsenious acid in solution, the liquid ammoniaco nitrate of silver be added, a yellow precipitate is formed. This is a pretty good test, and one that may be relied upon when properly prepared, as it throws down a yellow precipitate with no other substance besides arsenious acid; when improperly made, it causes a yellow precipitate with the phosphate of soda.

Sulphuretted Hydrogen.—The fluid suspected to contain arsenic, before being subjected to this test should be neutralized by means of an alkali, if it be acid; but if it be alkaline, by an acid. A stream of sulphuretted hydrogen is then to be passed through it,—a sesquisulphuret of arsenic (a yellow precipitate) will be formed, if

arsenic be held in solution. In the process water is formed by the union of the oxygen of the arsenious acid and the hydrogen of the hydrosulphuric acid. When this latter acid comes in contact with cadmium, antimonial persalts, etc., a color similar to that of colcother is produced, and may be by those not intimately acqainted with it, mistaken for it. The precipitate formed with cadmium possesses none of the characteristics of the sulphuret of arsenic with the exception of color, not being volatile, assuming a red appearance when heated, and again yellow when cold, etc. From the persalts of mercurial compounds, selenic acid, etc., the arsenical precipitate may be distinguished by the reduction and other tests. In fact, in all cases, to render our conclusions more certain, the *reduction test* should be resorted to.

Arsenuretted Hydrogen Test — Marsh's Test. — For the discovery of this valuable test the scientific world is indebted to Mr. Marsh, of England. The principle of its application is this: — If nascent hydrogen be made to act on arsenious acid, the latter is decomposed, and as a result, water and arsenuretted hydrogen are formed. If the arsenuretted hydrogen be ignited as it passes through a capillary opening, from the vessel in which it is generated, either metallic arsenic or arsenious acid will be deposited. The materials for generating hydrogen are zinc, sulphuric acid, and water. They are placed in a glass tincture bottle of convenient size, having a perforated stopper or cork, into which is inserted a glass tube, either straight or bent at a right angle after it leaves the vessel; the extremity of the tube is to be *finely* drawn out. Chemical action in a very short time ensues, and if the zinc or sulphuric acid be adulterated with arsenic, arsenuretted hydrogen will be developed which may be determined by the application of an ignited taper to it; if it be arsenuretted hydrogen, on bringing a piece of white porcelain plate in contact with it, a crust of metallic arsenic will be deposited on it — and if the flame be introduced into a glass tube, held obliquely, a deposite of white arsenic and arsenious acid takes place.

The original instrument of Marsh was extremely complicated; several modifications of it have been offered, but the one above de-

scribed offers all the advantages of others more complicated; besides, a new apparatus can be employed, (because of its cheapness and simplicity) for every experiment, and thus avoid the risk of having our fluids to be tested, mixed with the arsenic previously used.

In using the nascent hydrogen test, we must be careful to have the apparatus perfectly clean, and the articles for the generation of the gas free from adulteration. The zinc of commerce or spelter as it is procured from *calamine* (carb. zinc) or zinc blende (sulphuret) is usually impure, containing either sulphur, cadmium, lead, arsenic, etc. From all these impurities it should be freed, before using it in the formation of hydrogen; as should also the sulphuric acid. After we have prepared the gas, its purity should be tested by igniting it and applying the porcelain plate: if it be pure and free from adulteration no discoloration takes place. The gas (arsen. hyd.) when burning, presents a bluish light flame and emits a white smoke.

Numerous objections have been raised against the certainty of this test; some of them are well founded, but all may be overcome, and the taches characteristic of arsenic, cadmium, antimony and some other metals detected with certainty.

1. *Arsenical Spot.*—The arsenical spot is metallic and of a steel color — volatile by the application of heat and dissolved by nitric acid. The arsenuretted hydrogen produces, when added to a solution of nitrate of silver, black flocculi, believed by some to be metallic silver, and by others, arsenuret of silver.

2. *Antimonial Spot.*—This tache is darker, less metallic, soluble and volatile than the preceding. There are many differences between antimonuretted and arsenuretted gases; their odor is similar, but they burn with a different flame — the former being yellowish and depositing a blue crust of the metal, surrounded by the white oxide; while the latter burns with a bluish-white flame, deposits arsenic and arsenious acid. When the deposites are dissolved, they may be distinguished apart, by an application of the tests for arsenic previously enumerated.

In cases of arsenic poisoning, the tartrate of antimony and potash is frequently used as an emetic, death ensues, an examination takes

place; and on applying nascent hydrogen, a crust is deposited on the mica or porcelain plate, being a kind of compound having some of the characteristics both of an arsenical and antimonial *tache*—being somewhat volatile and soluble in nitric acid. Prof. Orfila in separating its constituents, collects and dissolves several of the precipitates and evaporates them to dryness; the substance thus obtained is composed of antimonious, arsenic and arsenious acids; by pouring on a small quantity of water (regulated by the amount of powder in the capsule) and the application of heat, the two latter acids are quickly dissolved, while the former falls to the bottom. The clear fluid being poured off, the arsenate of silver (occasionally mixed with the arsenite) is produced by the addition of the nitrate of silver in solution. That which remains in the capsule is dissolved by dilute muriatic acid and upon passing a stream of sulphuretted hydrogen through it, the sulphuret of antimony is immediately recognised by its orange color.

3. *Spot from Phosphorous.*—This tache is either of a brilliant yellow, brown, or white color; it is volatile, but not soluble in nitric acid.

There are still two other taches insignificant in themselves and scarcely liable to be mistaken for the arsenical tache. We refer to the iron and zinc spots. The first is thus explained:—the glass or porcelain surface becoming very hot, by contact with the ignited hydrogen, causes an evaporation and separation of the water from the iron, the iron is then deposited and finally decomposed, the peroxide remaining. To cause this effect to take place, it is necessary that a large quantity of iron be used and the heat great. It is not volatile, but when dissolved in nitric or sulphuric acid, causes the formation of a blue precipitate with the ferro-cyanuret of potasium. The other tache is formed in the same way and is purely an oxide of zinc.

Some difficulty will be met with in using the *nascent hydrogen test*, when liquids such as soup, beer, etc., are to be experimented upon, by their *frothing* and choaking the capillary tube so as to prevent the escape of the gas. Various methods more or less objectionable have been proposed to obviate this difficulty, such as oiling the

apparatus, placing alcohol on the surface of the fluid, etc., etc. The following is the method recommended by Danger and Flanding:—"To the arsenical fluid in a capsule, one-sixth of its weight of sulphuric acid is added and heated until sulphuric acid vapors appear; it is to be stirred with a glass rod, and after a time carbonization is completed. The arsenious acid is to be converted into arsenic acid by means of nitric or nitro-muriatic acid evaporated to dryness and prepared for the action of the nascent hydrogen by boiling water. If these organic fluids be not perfectly carbonized, they may deposit crusts similar to those caused by arsenic and are composed of the sulphate and phosphate of ammonia. They differ from the arsenical taches in not being easily dissolved in nitric acid, and when dissolved and evaporated to dryness, yield the phosphate of silver on the addition of the nitrate of silver.

Means of detecting Arsenic in Organic Textures.—As arsenic causes death by being absorbed, and not by its local action on the stomach and bowels, we are to look to the organic textures for its seat. The fluids of the intestines should however first be examined: they as well as the urine should be carbonized either by heat or by nitric acid as above explained, before being subjected to the action of the nascent hydrogen test. Next in order, the heart and liver should be examined, as these organs always contain a sufficiency to be acted on provided arsenic had been taken by the subject. Their examination is simple: a quantity by weight of these or any other organs (as they are all examined by the same process) is to be dried by heat and digested with three or four times as much nitric acid, until it becomes dry—boiling water is poured upon the fluid, then filtered and subjected to Marsh's apparatus.

Other methods have been resorted to for the separation of arsenic from organic matter, and with success. The following is somewhat complicated but capable of being performed when care is taken. The organic matter or mixture in which arsenic is supposed to exist being decomposed by nitric acid, is diluted with water and boiled; after it cools fatty substances rise to the surface; they are taken away and washed, and the thicker and more consistent por-

tions added to the cold liquid, which is again subjected to the action of heat until it becomes of the consistence of syrup or molasses. If it now has the orange or yellow tint, no more nitric acid is added; but if it be of a different color, we are again to add nitric acid and treat it in the same manner until it acquires the proper hue. After which three times its weight of salt-petre is added; water is poured into the capsule, and heat applied until it is evaporated completely. The capsule is now so intensely heated, that a deflagration ensues, and all organic matter is destroyed. The part not destroyed consists of the nitrate and carbonate of potash, and the salts of the organic matters, and of arsenic, which is is to be placed in a retort with little more than an equal quantity of the hydrochlorate of ammonia, and subjected to a stong fire. Here the chlorine of the ammonia unites itself with the potash and the hydrogen reduces the arsenic to arsenious acid, which settles in the neck of the retort."

In conclusion the importance of being minute in our examinations of the dead body, is rendered imperative from the fact of arsenic being supposed to exist normally in the organic tissues.—That it exists normally in the bones no one acquainted with recent chemical researches can for a moment doubt, but its existence in the fleshy organs has by no means been demonstrated with certainty. The nascent hydrogen test from animal matter digested in nitric acid, has developed spots somewhat resembling the arsenical, though they are insoluble in nitric acid. They are probably of sulphurous or phosphoretic origin, as these two substances exist to some extent in the muscles, etc.

ART. II.—*Case of Stricture of the Rectum, produced by Disease of the Skin. Read before the Medical Convention of Ohio, May,* 1843—By J. G. SACHSE, M. D.

Christian Maeronde, a glass-maker by trade, and native of Elsatia, France, applied to me while a resident of Pittsburgh, for medical aid, in Sept. 1834. He was then 38 years of age, single; apparently of some education. During his service in the French army, he was ad-

dicted to spirituous potations, but not to excess. As far as his recollection went, he had enjoyed constant good health with the exception of a slight indisposition after vaccination. In his 25th year he had been affected with gonorrhœa simplex, of which, however, he was cured in two weeks, by low diet, and the use of a table spoonful of sweet oil, three times a day. During a passage of six weeks across the ocean, in the spring of 1830, he had slept in the same berth with a passenger who, according to his (M's) description, was afflicted with a severeherpetic affection, which covered his whole body in clusters. M———, fearing no danger himself from this disease, used no precaution to escape the infection. But after a sojourn of three months in Pittsburgh, he noticed the same cutaneous eruption on his left extremities which, in spite of all medical aid, spread gradually over the whole body in the course of a year, until it at last attacked the roots of the finger nails. Tired of the long continued employment of medical men and the attendant expenses, as well as of the constant itching, he prepared at last by the advice of a fellow-workman a salve composed of flowers of zinc, sugar of lead, sulphur and lard. This he rubbed in over the whole body every evening, before a heated glass furnace, and was thereby freed of this troublesome and disgusting affection in the course of three weeks. But from this time he lost his previously excellent appetite, suffered severely and constantly from thirst, fullness in the pit of the stomach, with uneasiness in the abdomen, irregular discharges, and increasing stiffness of the whole body. In the commencement of October, a violent diarrhœa attacked him, which, although checked occasionally for a few days, could not, in spite of all professional as well as domestic remedies, be prevented from re-appearing, preceeded by rumbling, flatulent distention of the abdomen, with the most violent back-ache, wandering pains in the pelvic and lumbar-region, and severe tenesmus. His alvine discharges at that period, he likens, on account of their suddenness, to effusions bursting forth with the greatest violence, after having overcome certain obstacles in the lower part of the abdomen; sensations from which he never felt himself entirely free. Sometimes he had been treated for dyspepsy, sometimes for hæmorrhoids; one physician

looking upon his disease as bilious, salivated him at the expense of two teeth, which treatment, however, considerably relieved him for about three months when the disease returned with renewed vigor.

The patient had for the last two years suffered alternately with indigestion, diarrhœa, and obstruction; but having from his own conviction of their impropriety, abstained from all alcoholic drinks, he had, at intervals, felt measurably well. Since, hitherto, neither the prescriptions of physicians, nor the remedies of quacks and other unprofessional advisers proved effectual; and as, by the almost constant use of drastics, his disease had of late increased to paroxysms of several days duration; he fancied that intoxication might allay his intolerable sufferings. He only succeeded in this scheme by taking in addition to liquor, three or four times a day, a tea spoonful of laudanum, and even this proving at last insufficient, he prepared, by the advice of a friend, his own opiate, by means of which he almost entirely destroyed himself.

Patient applied to me in Sept., 1834, for medical aid. His condition was as follows: he was of a robust structure, but greatly emaciated; of stupid appearance; face of cachectic hue; a countenance expressing the most intense sufferings; tongue covered with dirty yellow mucous, the end of it brown and dry, trembling; feet œdematous since six weeks, and his skin was harsh and dry; pulse soft and small; his reflections defective, often losing the breath in his conversation. His principal complaints were: a burning thirst, bitter taste, eructions, rumbling in his bowels, nausea, a constant pressure in the precordia, a sensation of distention in the abdomen, and dull pains in the lumbar, and iliac regions alternately; sometimes ascending with painful hiccups, sometimes descending with intollerable pains in the small of the back; frequent inclination to urinate, the urine discharged being of small quantity, and varying color; constant tenesmus; stools sometimes succeeded, they were watery, with very small hard lumps. These were always followed by constant constipation, and other sufferings, usually compelling him to resort to some laxatives, consisting in the use of some patent pills, etc. Paroxsyms of colic sometimes became so violent as to compel him (opium being

no longer of any effect) to force into the anus a solid, cold, somewhat bent glass tube of half an inch in diameter, and ⅓ in length, rounded at one end, and which accidentally almost corresponded to the concavity of the sacrum. This resort, together with a preceeding laxative, immediately produced a liquid, copious discharge. This, he assured me, was the only remedy which in a measure alleviated his sufferings. What induced him to resort to it, was, that once, when suffering with an excruciating pain and itching in the rectum, he introduced a finger into it, but this proving ineffectual, he frantically snatched the above mentioned glass tube from the hands of a child playing with it, and thrust it into the rectum, by which operation he effected a copious discharge of liquid excrements.

In examining the patient, while laying on his back, I found the left hypocondrium swelled, and globular, somewhat moveable doughy masses of fæces, could be felt through the lean abdominal integuments, and traced down to the iliac region. The slightest pressure was followed by colicy pains and nausea, and forbade a more thorough examination of the abdomen.

Difficult as it often is in degenerations of an organ in the abdominal cavity, to arrive at once at a correct diagnosis, yet here it was clearly obvious and needed only exploration of the rectum in order to fix the exact locality and nature of a stricture. This exploration I immediately undertook, but had to desist from it at that time on account of the extraordinary irritability of the rectum, and the adjoining parts. Although the patient could introduce his oiled finger without difficulty, yet this was impossible for myself with all possible care. I then caused him to introduce the glass tube himself; which being done, I examined, and met, four inches high, with some obstacle; I endeavored to advance softly, and having proceeded to about five and a half inches, there occurred a violent straining, succeeded by a copious, liquid evacuation of fæcal matter, of a healthy color. During this operation he complained of cramp in the rectum and the bladder, communicating itself to the whole abdomen, and succeeded by nausea. I desisted from farther examination, and endeavored

to prepare the organs for a future and more thorough exploration, by the following means: —

℞ Ol. amygdalar., ℥j;
Gummi arabic, ℥iij;
Ext. hyoscyam., grs. xxiv; [sio.
Aq. simpl., ℥v. Mix. fiat. l. a. emul-

A table-spoonful to be taken every three hours; and —

℞ Herb. hyoscyam., ℥jss;
Ol. olivar. q. s. coq. hor. ¼ ad colatur. ℥xij.

Two ounces to be injected per rectum every six hours, and tea-spoonful to be rubbed in over the abdomen every three hours. After each embrocation I ordered an emollient cataplasm. This was continued for twenty-four hours. At my next visit, patient assured me, that he had not slept so well for the last year, and that he was free from pain. No discharges by stool or bladder, nor any straining as in the former nights, had taken place. After a great quantity of urine had been discharged naturally without any inconvenience, and after an ounce of the ol. hyosc. had been injected, I had the patient placed on his back, and proceeded to a further examination per anum by means of the finger only, which caused him no pain. About two inches above the sphincter, the mucus membrane, especially on the left side, was covered by flat elevations, of the form and size of the Lima bean, and higher up, these elevations and the narrowness of the canal increased, but without hardness, until the point of the finger was evenly embraced by the puffy narrowness. I was not, however, able to reach, in this manner the end of the stricture, and amongst others, selected a bougie of gummi elast. waxed according to Ducamp, which, well warmed and oiled, was introduced along the fore-finger, with regard to the anatomical relations of the rectum, till I met with some obstacle, where, with very slow motions and with difficulty, I could advance it only one inch higher, it becoming wedged. On further trial to advance it, straining was produced and followed by a copious liquid evacuation, putting a stop to my present investigations. Ducamp's bougie evidently showed the seat and form of the stricture. After having penetrated four and a half inches, the wax was shaped

into a conical form of three-fourths of an inch in length, terminating in a cylindrical form of one inch in length and one inch and a half in thickness, on which appeared irregular flat impressions. The cramp of the rectum, communicating itself also to the bladder and intestinal canal, was not as violent as yesterday, and not followed by nausea. I left the patient, enjoining on him the continuance of the above prescriptions, and a proper regimen until the third morning, when, to open the bowels, he was to take ol. ricini.

If we take the efficient cause of this disease to consist in the cutaneous affection above alluded to, acquired at the time when he enjoyed perfect health, to which we are induced by the general indisposition which appeared immediately after quick suppression of the affection; by the indigestion and alternate diarrhœa together with costiveness which obstinately defied every treatment, and appeared here as a secondary evil; we cannot but infer, that this stricture is the product or morbid metamorphosis of that cutaneous affection, which had now become inveterate in the constitution, and the stricture appeared now of a local species. And although the supposed efficient cause, the long continued disease, the high situation, and the great extent of the stricture, and the enfeebled constitution, do not permit us to pronounce a favorable prognosis, yet, on the other hand, we must also consider that in regard to the nature of the stricture, the prognosis here can only be pronounced conditionally unfavorable, because, in the course of the examination no carcinomatous, scirrhous, or fungous appearances were found, and, therefore, I was inclined to hope for a possibly favorable issue of the disease; bearing in mind always, that this was only an apparently local affection, produced by a constitutional disease. Leaning upon this pathological view, the indication appeared to be: to remove, if possible, the supposed remote cause, proper regard being had to the now existing constitutional disease, and to oppose to it a general anti-dyscrasic-herpetic treatment, with direct application of pharmaceutic mechanical means to the stricture itself. The still existing sub-inflammatory and spasmodic state being removed by scarified cupping on the abdomen and small of the back, warm baths and antispasmodics, I prescribed —

℞	Hydrarg. mur. mit.,	℈j;	
	Extr. hyoscyam.,	ʒss;	
	P. ipecac.,	℈j;	
	P. gi. guaiac.; sulph. dep., aa.,	ʒij;	[115.
	Sap. med.,	ʒj.	M. f. pil. No.

Three to be taken four times daily. These pills were continued for some time, and repeatedly modified as by ext. dulcamara, sulphur. aur., antimon, hydrarg., stibiat. sulphurat., etc., omitting the calomel.

Sufficient discharges failing, ol. ric. or magnesia carbonica usta were used. To render the above-mentioned remedies more effectual, I ordered as as drink, a decoct. of rad. bardanæ and rad. sarsapar., and every other day a bath and friction of the skin. For two weeks, an injection of decoct. herbæ cicutæ., and oil of liver was used every morning and evening. If colical pains occurred, an antispasmodic liniment was rubbed in, and an emollient cataplasm applied. The diet was mild but nutricious. Under this treatment, patient felt tolerably well, and when at last the irritability of the rectum admitted of it, I proceeded to enlarge the stricture by means of bougies made of prepared sponge,* saturated with gi. arab. and on its upper half with a solution of ext. conii. macalati. After several fruitless attempts, I succeeded to introduce it for the first time on the 16th of October. These bougies were at first thin, according to the stricture, but as soon as patient was able to endure it, their diameter was gradually enlarged. They were kept no longer in the rectum than the irritability would permit. For the first bougie, whose diameter corresponded exactly to the above-mentioned waxed one (after Ducamp) could be kept in twelve minutes only, owing to the irritation it produced, but on the 15th day, when the patient kept quiet, it was retained for a whole hour. Patient having become somewhat skilled in the use of the glass tube, performed the introduction of the bougie himself. The passages becoming regular and daily after the bougies had been used, for the space of eight weeks they were omitted, and the

* The first application of the dilating bougie of sponge for the enlargement of stricture of the rectum was made by the Prussian Surgeon-general, Rust, of Berlin, who acquainted me with its mode of preparation and employment.

medicines gradually exchanged for tonics. The patient enjoyed good appetite, was apparently quite well, and could hardly submit any longer to medical restrictions. His constitution had undergone an entire change for the better, and after a treatment of four months, he might hardly have been recognized as the same person. He would now have resumed his occupation, but his necessities being supplied by charitable institutions, I did not permit it; suspended, however, the use of medicine, enjoining only a constant strict regimen.

In the beginning of March, 1835, i. e., about twenty-three weeks after the commencement of the treatment, an itching of the skin reappeared, which was ascribed to neglect of diet and to the former cutaneous affection, which probably had not yet been eradicated. I, therefore, recommended a milder and more meagre diet, prescribed the herba viola tricolor boiled with milk or water, for some time deferring, in case more was to be done for him, the radical treatment to a milder season. In the latter part of this month, there re-appeared on the left thigh several reddish spots of the size of a bean and irregularly raised, some being covered with light grey scales. A thin cuticle appeared on their scaling off, from which a transparent liquid oozed, the least pressure causing pain and bleeding. Not considering local external remedies, except warm baths, advisable, I prescribed the following pills: —

℞ Ext. dulcam.,
Res. guaiac,
Antimonii crud. aa., ʒij;
Ipecac., ℈ss. M. ft. pil. No. 240.

Six to be taken three times a day. He improved but very slowly in the course of four weeks. I, therefore, prescribed on the 6th of April, a cathartic of calomel, to be repeated three times, once every sixth day: instead of the simple warm baths I ordered sublimate baths of 30° Reaum., ten on the whole, one every fifth day to be used after written regulations. After this, I ordered the oleum jecoris aseli, in modern times so celebrated in Sweden, Denmark and Germany. Of this, he took at first one table-spoonful three times daily, increasing the dose every third day by one spoonful until six ounces were taken per day, and this was continued for the space of three months.

Under this treatment the patient felt well, enjoying a good appetite and regular stools, without any difficulty. The eructations caused at first by this disagreeable remedy, were corrected by an addition of peppermint tea. My most urging recommendations, and the patient's apprehensions of a return of his former sufferings, only, could prevail upon him to continue it, so that he became at last used to and liked to take it. After it had been thus exhibited for nine weeks, the skin became entirely clean and capable of performing its natural functions, and the patient returned now with new vigor to his former occupation. As a precautionary means, however, I made him continue the use of the oil for four weeks longer, and established a drain by means of an issue to the inner part of each extremity below the knee.

At the commencement of October, patient enjoyed perfect good health, was at work, and lived on common fare, and resolved to make a change of place. Seeing no cause for fearing a relapse, I assented to this the more readily, since I was of opinion that after such protracted sufferings, a change of scene could only operate beneficially upon him, who took a grateful leave, and set out for New Orleans. But what was my surprise, when I beheld my former patient, on the 28th of December, of the same year, again at Pittsburgh, soliciting my aid anew, "before," as he expressed himself, "it was too late." About four weeks previous to his arrival in Pittsburgh, both issues, although carefully attended to, had inflamed, and not being able to endure the pains, he had suffered them to close, applying bread and milk poultices until the inflammation had subsided. The cicatrices became now the seat of the former cutaneous affection, which also extended to the inner part of the thigh, increasing daily in size, and causing an intolerably painful itching; all which, together with the recollection of his former terrible sufferings, had urged him on to return to Pittsburgh. The patient's constitution appeared to be in the best order; the skin, particularly in the face, healthy and full; every function was performed in perfect good order, and nothing alarming could be discovered about him, except a great exaltation of spirits and the progressing eruption, to which I am not able to give a definite name, but I was induced to suspect it to be of a syphilitic origin (in spite of the patient's denial of ever having had syphilis

in its primary form) on account of its almost copper colored basis with puffy margins, its sensitiveness to the touch, emitting a sharp, sanious fluid, forming a thin ill-colored crust.

Although it could not be decided, whether the patient's statement with regard to his having derived his cutaneous disease by infection from a bed-fellow, was correct, or whether the eruption was produced by syphilis or connected with it, yet I judged it advisable, numerous as are the remedies for such inveterate maladies, to subject this obstinate case to another thorough but methodical treatment. Instead of chosing, for this purpose, a treatment purely mercurial, I adopted one that was only combining mercury as in Zittmann's decoction.* To this decoction, I felt convinced, the preference ought to be given in this deeply rooted affection over a purely mercurial treatment. I believed myself supported in this opinion by the high authorities of such men as Theden, Proebish, Buettner, Hufeland, Chelius and others. Indeed, upon the authority of my highly honored and celebrated teacher Professor Chelius, I had already, myself, repeatedly and successfully applied the same decoction in similar bad habits with deeply rooted or complicated syphilis, where the mercurial treatment had been unsuccessful, and therefore, resolved to oppose the same decoction to this form of disease.

After having made the necessary preparations towards this method of treatment, I prescribed the decoct. Zittmanni, observing the usual precautions, only varying in the quantitiy by increasing it from sixteen bottles to twenty-four, so that four days more, in addition to the usual number, were required to consume it; and after four weeks, the treatment was completely successful, and M. was dismissed entirely well on the 6th of March. From that time to my leaving Pittsburgh, in April, 1839, patient remained well, and without the least return of the former affection. At the close of last year, M. informed me, on inquiry, that he was in perfectly good health, and that no traces of his former disease had re-appeared. He was then father of two healthy, stout children.

* It would lead too far here, to communicate the particulars and the method in regard to the use of Zittmann's decoction. Yet, as I am aware, that although this decoction is not unknown to many of my hearers, the general application of it seems to have been very little appreciated in this country, I reserve a communication in regard to it for some future period.

ART. III.—*An Inquiry into the Medical powers of Ergot*—By John Dawson, M. D., of Jamestown, Ohio.

FROM the time the attention of the profession was called to the medical properties of secale cornutum, much diversity of opinion has existed among medical men in relation to the control it possesses over the uterus. The reputed discoverer, Dr. Stearns, of Saratoga County, New York, supposed that it really possessed the power of exciting the uterus to contraction; and to this characteristic of the drug he called the attention of the profession. Similar views were entertained in Germany long before the time of Dr. Stearns, as the names, *mutterkorn* and *geborpulver* (womb grain,) (pulvis parturiens) appropriated to the substance, testify. But it is to the labors of Dr. Stearns that we are indebted, for the introduction of this substance into the materia medica of this country, Great Britain, and the countries generally on the continent of Europe.

Notwithstanding the great amount of testimony issued from the press within the last twenty-five years of the present century, going to show that the *secale cornutum* possesses the power of inducing contractions of the uterus, it, nevertheless, from some cause or other, seems to lack that conclusiveness that is adequate to produce general conviction.

The views of the profession in regard to the efficacy of ergot in parturition.—Touching this subject our own countryman, Dewees, says—"The action of the ergot appears to be specifically upon the uterine fibres: urging them, sooner or later, to more or less violent contraction."

"The evidence which we possess on this subject," says J. B. Beck, "is so abundant as one would suppose would be sufficient to preclude all doubt."

Bayle, who has been at great trouble to satisfy himself on this subject, has collated the reports of sixty-two authorities, and out of 1176 cases of lingering labor in which the ergot of rye was administered, 1051 were more or less promptly terminated. It failed entirely in 111 cases; and in 14 the effects were moderate.

Dr. Ward, of New Jersey, states, that during six years practice he gave it to between sixty and seventy patients, and in every case, except one, it produced powerful uterine contractions.

Against the supposition that the ergot of rye possesses any power whatever over the parturient uterus, we have the testimony of Robert Gooch. In his lectures on Midwifery and the diseases of Women and Infants, delivered at St. Bartholomew's Hospital, he says, "The Americans reccommend the ergot of rye in doses of half a drachm or two scruples, and affirm that the uterus was almost immediately excited by it into vigorous contraction. I never used it, neither do I credit what has been said respecting its efficacy."

To the above, the editor of the lectures, Dr. Skinner, appends the following note:—

"I have had many opportunities of putting this remedy fairly to the test by administering it in cases, the tediousness of which I had been led to anticipate, by my attendance on the same woman in former labors, which were exceedingly protracted from a sluggish and ineffectual action of the uterus. I have repeatedly given the ergot in half drachm, and two scruple doses; I have given it both in powder and in infusion; and I never witnessed in one instance the slightest benefit from it."

Chaussier and Madame La Chapelle used it extensively in "La maternite de Paris," and consider it to be inert, never having witnessed any effects whatever from its administration.

We have quoted enough to show that the opinions of some of the prominent writers on obstetrics are diametrically opposite. Nor is there any more unanimity of sentiment among practitioners of less claims to distinction. Many, who have tried the medicine to their satisfaction, report it as being unworthy of confidence. The majority, however, of the medical men with whom we have conversed, suppose it capable of exerting a decided influence in protracted parturition.

Respecting the *peculiar kind of uterine action* which ergot excites, we are not altogether clear in our conceptions. Dr. J. B. Beck says that "the pains which are produced by ergot are entirely

different in their character from those of ordinary labor. The latter are distinguished by perfect intermissions, while the former, are not only more severe, but they are continuous until the labor is completed." Professor Dewees thinks that "It is not the *alternate* contraction alone that is increased by this substance; the *tonic*, which is of much more value, is also powerfully augmented, since it can, in consequence of this power, be most advantageously employed, in many cases where this effect is all important."

From the essay of M. M. Trousseau and Maisanne on the use of ergot of rye, published in the *Bulletin General de Therapeutique*, we find drawn the following conclusions: —

1. "That the ergot exercises on the uterus a powerful but transitory action."

2. "That this action chiefly concerns the *fibres* of the uterus, and determines their contractions."

While the proper tissue of the uterus continues to elude all the efforts of anatomical research, our ideas concerning the peculiar kind of action induced by any article of the materia medica on this organ, must necessarily remain crude. We know that the contractions which take place in the parturient uterus, resemble very closely the muscular; but upon what kind of fibres this contraction depends, or what arrangement of them exists in the proper, or intimate nature of the organ, is little known. This is perhaps the reason why all attempts to describe the peculiar kind of action which ergot is said to induce, have in general been unsatisfactory. We can have some conceptions of what Prof. Dewees means by the *alternate* contractions which he says are produced by ergot, but concerning the *tonic* contractions of which he speaks, as being of the most importance in parturition, we confess, our ideas, from all that we can gather from the tissue of the uterus, or the effects of the drug, are by no means clear. Dr. Winans, an old practitioner of this place, has used ergot in his obstetric practice for twelve years, and says, from his observations, that it increases the kind of contraction that exists previous to its administration, let this be the *alternate* or *continuous*. He has frequently given it in those cases where we refer the delay to a contraction of the

circular fibres in the *neck* of the uterus, and invariably *this* has been increased.

The length of time necessary for the drug to make its impression upon the uterine fibre, is variously stated by different authors. Dewees thinks that if it do not manifest an influence in twenty minutes, or half an hour at farthest, it utterly fails.

Dr. Prescot marked the time accurately in twenty cases. In two, the effects were perceivable in seven minutes; in one, eight minutes; in seven, it was ten; in three, eleven; in three others, fifteen; in the four remaining, no effects until twenty minutes had expired. (Dissertation on Ergot by O. Prescott, Boston, 1813.) Dr. Ward used it in sixty or seventy cases, and in all the cases, except one, it displayed its effects in fifteen or twenty minutes. Patterson states that he gave it in eight cases; and it acted strongly in less than five minutes.

The conditions of the uterus in which ergot has most generally been administered, are:—

1. Where the membranes are ruptured, the os uteri dilated, and the external parts disposed to yield, but the pains are not sufficiently strong to produce the expulsion of the fœtus.

2. Where, without any mechanical impediments, or disproportion between the head of the child and the dimensions of the pelvis, the natural pains flag, and the progress of labor becomes arrested.

3. Where, after labor, the uterus sinks into a state of atony, and the placenta is retained.

4. Where any thing occupies the cavity of the uterus, such as hydatids, coagula, polypus, or a dead child, and there is no pain to procure expulsion.

To form an opinion concerning the efficacy of the medicine, by observing the phenomena presented after it has been exhibited in the first three conditions of the uterus above named, would be likely to betray us into error; for in either of them, the coincidence of natural pains might be mistaken for the effects of the ergot. How often does it happen in the practice of every physician, that weak, inefficient pains, are succeeded by stronger ones? that after the pains from some cause or other have flagged, they are, after a while, renewed with

sufficient energy? that in retention of the placenta from atony of the uterus, the organ revives with sufficient power to throw off its contents? and all this too without any thing being given to bring about such results. Under circumstances of this kind, therefore, to attribute the contractions of the uterus to any drug that may have been administered, would perhaps lead us into the sophism, *non causa pro causa.* We administer the medicine, we witness the contractions of the uterus, but we know not to what they should be attributed — to the powers of nature, or to the properties of the medicine.

I will now relate some cases where the drug has been used in the practice of my partner, Dr. Winans, without taking any effect whatever upon the uterus.

CASE 1. — Mrs. K. was taken with convulsions at the seventh month of gestation, which by blood letting and antispasmodics were arrested. On examination, *per vaginam*, a dead child was detected, and the ergot given to bring on labor pains. It, however, failed to take any effect; and the delivery was effected by the forceps.

CASE 2. — Mrs. S., during the seventh month, commenced swelling, which increased until the abdomen became extremely hard and tense. Complaining of an uneasy sensation in the abdomen, she was examined, and a dead fœtus found in the womb. The ergot was given, but failed, and the child delivered with the forceps.

CASE 3. — Mrs. O. was found laboring under a fœtid discharge from the vagina, which on examination was found to proceed from a putrid child in the womb, supposed to be at the seventh month. No pains, the ergot was resorted to, but without any success.

CASE 4. — Mrs. E., after having been pregnant for about nine months, was taken with a fœtid discharge from the vagina, which continued for two months, when it partially ceased, and left the sensation of a heavy weight in the hypogastric region. Around the os uteri the skeleton of a dead child was destinctly ascertained from the angular projections of the bones. The ergot was given and took no effect.

The Dr. also states, that he has never given the ergot where *there was no pain*, but what the result was disappointment. In such

cases the medicine, in his hands, has proved itself to be inert. The dose used was from ten grains to two scruples.

Very confidently, too, ergot is proposed as a remedy for those exhausting and dangerous hæmorrhages incident to some women in parturition. Dewees, and other writers, speak of its value here; and the practice is to give a dose of the medicine, ten or fifteen minutes before delivery, so as to have the medicine displaying its effects upon the uterus about the time the delivery is accomplished. For this variety of hæmorrhage a certain remedy would be very desirable. But a short time since, a lady, near this place, who had had all her former labors complicated with it, was delivered of a healthy child, without any apparent difficulty attending the *accouchment*. About the time the delivery was accomplished, she commenced sinking rapidly from a very profuse hæmorrhage, and seemingly before the attending physician had time to administer any thing for her relief, she was dead. Fatal anæmia from causes of this kind, is perhaps more common than has generally been supposed; and if upon extensive trial, a remedy for it will be found in ergot, the profession will have good cause to be rejoiced.

As a remedy for dysmenorrhæa, the ergot of rye has been urged by some practitioners in this country, and on the continent of Europe. We find, however, by examining the cases, in which its success has been extolled, that the ergot was generally combined with anodynes and antispasmodics. Independently of some combinations of this kind, but little is reported in its favor. Now, we look upon the evidence drawn from such data, as being insufficient and unsatisfactory. Anodynes and antispasmodics, in themselves, are palliatives of the disease, and to some extent, may be regarded as remedies. They came in, therefore, for a share of the credit when a cure is accomplished, and leave the effects of the ergot, as a matter of ambiguity.

To obtain then correct views in regard to the curative powers of any article of the materia medica, nothing is like simplicity in prescription. When several medicines are compounded together to cure a disease, or fulfil an indication, we can see no propriety in

attributing the results that follow to any one isolated article of the compound. We think, therefore, that the success reported of ergot in dysmenorrhæa, needs further confirmation. Besides, if we have any correct conceptions of the pathological condition of the uterus in dysmenorrhæa, and the manner in which it is goaded by uterine distress, ergot seems but poorly calculated, from its avowed properties, to produce either mitigation or cure.

In *amenorrhæa* the reputation of the ergot stands about as high, as in the disease just noticed. Given, however, without due regard to the variety of causes which give rise to this disease, its efficacy must be extremely equivocal. Absence of the menses, when we reflect, may depend upon a lack of energy in the uterus, or in the general system, or upon malformation of the uterus, ovaria, fallopian tubes, or upon an imperforate state of the os uteri, or upon cohesions of the labia, or vagina. It is not possible, therefore, for ergot or any single remedy, to control all these various and diversified pathological conditions. It may be beneficial in some forms of the disease; indeed it may prove itself to be a remedy where the obstructions are caused by lack of nervous energy in the uterus; but where the general system is at fault in this respect, we should confide more in exercise, generous diet, and the preparations of iron. And where the trouble is from an imperforate state of the hymen, or os uteri, mechanical means are imperatively indicated.

The above are the principal diseases in which we find that the medicine has been most used. Suggestions, though, of its value, are not wanting, in laucorrhœa, hemaptysis, intermittent fever, passive hæmorrhage from the uterus, etc. But as the experiments in these diseases have been limited, the evidence in its favor amounts to nothing more than mere probability.

The frequent failure of ergot to take any effect, whatever, is ascribed by those who believe in its powers, to several causes. Many of the specimens with which the profession is furnished are of bad quality. Kluge states that the ergot collected before harvest is energetic, while that collected after harvest is totally powerless. Again, although a wet spring seems to be favorable to the growth of the *secale cornutum*, it requires a dry summer to perfect a genuine arti-

cle: for the principle upon which the activity of the drug depends, resides in the diffluent peridium, or external covering, which is washed off when heavy rains fall about the time at which the spur is being matured.—[Burnett's Outlines of Botany.

Administered in the fourth, fifth, and sixth presentations, where there is usually delay from the difficulty with which the forehead engages under the arch of the pubis, its effects are not so obvious in expelling the child; and in presentations of this kind, as well as where a want of proper relation obtains between the head of the child and pelvis, the delay which is usually attributed to a lack of activity in the medicine is, perhaps, the result of mechanical impediment.

Since the suggestion in 1812, by the New England Journal of Medicine and Surgery, of children being occasionally *ergotized*, there has been no little written, both affirmatively and denying that ergot takes any such effect. Of course those who are skeptical in regard to the alledged powers of the medicine, would withhold their assent from an incidental effect of this kind, however strongly urged. Dewees, nevertheless, who is a firm believer in the parturient power which it possesses, denies altogether the existence of ergotism; and says that the appearances denominated ergotism are referable to violent uterine efforts, when the child is detained in an unfavorable position, rigidity in the soft parts, or want of proper dimensions in the pelvis. My own practice furnishes a number of cases of still-born children, having all the characteristics of ergotism, where none of the medicine had been administered. Still, from the abundant testimony to which we have had access, recorded and unrecorded, we are not prepared to deny its existence. To diagnosticate, however, between the effects produced by tedious, difficult labor, where the parturient efforts of the uterus are violent, and ergotism, would, we suppose, be a matter of no small difficulty; and one, that, so far as we are acquainted, has not been undertaken.

What now seems the most remarkable in relation to this drug, is, the want of confidence in its efficacy which prevails, not only among practitioners who have never favored the profession with their experience, but, also, among writers of distinction. No doubt, the weight of testimony, were it all recorded, would preponderate in favor of its

efficacy; yet there are some very scientific modern writers on obstetrics, who make no allusion whatever to the drug as an available agent in difficult parturition. This, therefore, leaves the powers of the article in a questionable condition, which can only be removed by making experiments with a pure specimen of the drug, in properly selected cases.

BIBLIOGRAPHICAL NOTICES.

ART. IV.— *The Anatomy and Surgical Treatment of Abdominal Hernia:* with numerous plates—By SIR ASTLEY COOPER, Bart., F. R. S., Surgeon to the King, and Consulting Surgeon to Guy's Hospital. From the second London edition, by *C. Aston Key*, Senior Surgeon of Guy's Hospital, and Lecturer on Surgery. Philadelphia: Lea & Blanchard. 1844. pp. 427.

THE great work of Sir Astley Cooper on Hernia has been before the profession for forty years, and instead of losing interest by time, it has steadily advanced in reputation. The author was an original and accurate observer, and hence, the work became at once the very highest authority; and what is very remarkable, after a lapse of forty years, but few additions can be made to the original text. Never has an editor interfered so little with the text as has Mr. Key in this instance; and the American publishers, doubtless acting under the very best instructions, have not considered it necessary that *Notes* should be added. We suppose a parallel case cannot be found in the medical world.

The form of the original work was that of a large folio, and as it was very expensive, the circulation was more limited than could have been desired. In addition to this, it is said that no complete copy of the work can now be obtained in London.

In the present edition, the publishers have most fortunately made choice of a form which will secure all the advantages of the original work, while the price will be greatly lessened. The lithography is of the very best order, and from a careful examination we are fully

satisfied, that the accuracy of the drawings has been preserved; indeed, the whole work is executed in the very best style, and reflects great credit on the enterprising publishers. We hope it may meet with an extensive circulation.

For sale by Messrs. Desilver & Burr, 112 Main Street.

ART. V.—*Steam Doctors and Pretended Medical Reforms unmasked, with a Recantation*—By J. Bennett, and J. Lamborn, M. D., former Students of the Botanico-Medical College of Ohio. Cincinnati: Shepard & Co. 1844. 12 mo., pp. 119.

THE following anecdote had at first deterred us from approaching this subject:—A certain *steam-doctor* of this city, possessing more brass than brains, challanged the professors of the Medical College of Ohio to a public debate, well knowing that the challenge would not be accepted. Like a true knight, however, he proceeded to the combat alone and belabored his opponents in peppery style. A medical gentleman, upon leaving the room, was asked, why it was that the regular faculty feared to meet the steamer? He replied by asking another question; tell me, said he, and then your question shall be answered, why the Yankee refused to take hold of the skunks tail? No further explanation was demanded; the result was sufficiently obvious to the *senses*.

In the present instance, however, we do not approach the subject with a controvertial spirit, the only object being to give a brief analysis of a book which furnishes us with some facts concerning the rise and progress of this once noted, but now much neglected system of empiricism.

The authors of this exposition were students in the steam school, as will be shown by the following extract from the introduction:

"In 1837-8, we attended the 'BOTANICO-MEDICAL COLLEGE OF OHIO,' and after leaving it, we engaged in the practice of medicine. We soon found that the result of a tenacious adherence in practice to the principles taught, was different from what we had reason to anti-

cipate. For, in many forms of disease that we had been taught would disappear by the persevering use of lobelia, steam and cayenne, we found ourselves completely baffled. And as we had always believed the system susceptible of improvement, we set ourselves to work to endeavor to supply the deficiencies we found. But the longer we practiced, the more imperfections we discovered, until we were convinced that to carry out what we had been taught, and what is yet taught, in part, at the same institution, would be to mark our course with destruction and death."

The object of the exposition is thus expressed:

"Our subject is to destroy charlatanism and knavery. With this before us, we present the work for the candid examination of all honorable and high-minded men, especially physicians, as the result of our observations and calm judgment, after a long acquaintance with the subject on which we write, hoping that our humble efforts may be instrumental in raising the standard of medical science, and ridding the world of the loathsome exuberance of quackery."

And on page 11 we find the following declaration:

"We shall utter nothing for facts but what we can prove in a court of our country; and state all else, as our belief, drawn from analogy. We come before the public as the enemies of no one, but as the friends of truth and humanity, and we hope to gain an impartial hearing."

With these asseverations of candor, we feel no hesitation in progressing with our examination of the work, especially as it intervenes as a barrier to ward off the odoriferous animal that defied the courage of the Yankee.

The following extract shows the estimate placed upon the character of Samuel Thomson, the author of the steam system:

"In his life, he declares that he was so lazy that he would not labor; and were he the only person of this character, we would not have seen the land swarming with 'twenty dollar doctors,' who feel it their 'duty to devote their lives,' to the spread of the 'glorious system,' and the 'relieving of their fellow beings from sickness and death.' He had no education, only having attended school three

months. Whether this neglect of education was consequent on principle, or on the predominant trait in his character, (laziness,) he does not inform us; but we are inclined to think that it was a principle in the family to encourage ignorance, as he, more recently, declares, (as we have been informed,) that his son John had, in spite of his opposition, 'got so much *larnin* that it had made a d——d fool of him.'"

The following exhibits this fraternity in no very favorable aspect for candor.

"Dr. C. B. Peckham, of Newport, Rhode Island, formerly a student of the Botanico-Medical College, and for twelve months editor of the Botanico-Medical Recorder, and who now pronounces the whole system of Thomson and his 'scientific improvers,' a '*stupendous humbug*,' informed one of us, that during his editorship of the Recorder, letters were frequently received, stating that death was produced after the administration of lobelia, and which he believed was produced in the manner we have related in the two foregoing cases. And yet the proprietor of that paper kept hidden such important facts from the medical world."

Part second of the book gives something of a history of the Botanico-Medical College of Ohio; and all the details found in the part, should be viewed not as necessarily singling out "A. Curtis, M. D.," and holding him up to public indignation, as an individual, which would indeed be a small business; but rather as exposing a *chartered school*, and only referring to the above named person to show the character of a public institution.

The next extract will give some idea of the character of this school.

"There are few, probably, now in the ranks of the medical profession, but are aware, that an institution, under the glowing title of the 'Literary and Botanico-Medical College of Ohio,' was chartered some years ago by the Legislature of this state. Said institution was founded by a person, who, at the time it received its charter, styled himself 'A. Curtis, *Professor of the Theory aud Practice of Medicine, Lecturer on Anatomy and Physiology, Botany and Chemistry, and Editor of the Botanico-Medical Recorder*,' but who, in

1841, is known as 'A. Curtis, M. D.' Principal of the College, etc. etc. The College (?) was situated, at the time of receiving its charter, in Columbus, capital of this State, but not prospering to suit the ambitious designs of its author, he removed to this city, where he still continues to carry on his depredations against the health and lives of society. The 'President' long since withdrew the term 'Literary' from the cognomen of his bantling, and not long since, he christened it the 'American Medical Institute,' but we believe he has again returned to the title of 'Botanico.'"

The author of this *magnificent* scheme had no contracted views of the limits of medical learning, but was willing its blessing should extend to all. How much has been lost to the world in consequence of the following stupendous conception not being consumated:

"We are now determined to establish a seminary, in which *ladies* can learn *from ladies* the art of preserving their health, and curing their diseases. So, as Boerhaave said, they can 'bid defiance to the doctors.' If they want a general education, they can get it here, as well as any where else. If they have a good education when they come, they can get their medical education in a very short time, and with little expense. If the wealthy wish to aid us to establish such a school, they can: if not, *we can* do it without their aid."

"In answer to the query which will naturally arise, on reading this extract, as to who those *lady medical* teachers were, we are inclined, from the great number of chairs we know him to have filled, the same time, to anticipate the oft-repeated and usual response to all querics in relation to the professorships of that institution, 'A. Curtis, M. D.'"

In the extract below we are told something of the medical qualifications of the founder of this school:

"The first knowledge the medical world had of 'Professor Curtis,' was in August, 1835, when he left Richmond, Va., where he had figured, for some time, as a teacher in a female school, which, he used to tell us, was the 'best one south of the Potomac,' and for a short time previous to his egress, as a 'full-bred' and 'thorough-going steam doctor,' and was ushered into the editorial chair of the Thom-

sonian Recorder, at Columbus, Ohio. It is unpleasant to speak, as we have to, of this man, whom we much respected, when we believed him honest, in his opposition to medical science; yet the claims of suffering humanity call on us, and that call shall not be in vain."

"With but a superficial acquaintance with some of the sciences, and yet in his swaddling clothes, in relation, even to the Botanic system, (as from this henceforth, we shall call it,) Curtis is represented to the world, by himself and others, as one 'well qualified' to prevent and cure disease, and instruct young men in all the various branches which form the splendid edifice of medical science. But whether he succeeded, during this year, in drawing any young men there, we cannot say. He does not pretend ever to have practiced, previous to his conversion to the Botanic faith, yet he makes loud pretensions, as to his knowledge of the regular science of medicine."

The next extract ushers us into the celebrated "infirmary:"

"Instead of finding an infirmary, as represented, we found no arrangements made for the benefit of the afflicted; and all advice steadily avoided, except by way of 'general principles,' which consisted of an eternal succession of 'Thomsonian courses,' though dressed up in a somewhat new style. And when any one wished to thus carry out his 'general' mode of treatment, there were no conveniences for such an operation, save a small room, some ten by twelve, for the reception of patients, and a boy some sixteen years of age, kept for running errands, etc., as physician, nurse, clinical lecturer, and, one might say, *demonstrator* of the modus operandi of these 'herculean remedies.' This was the 'infirmary,' where students were 'to learn the efficacy and correctness of the principles taught in the college, by practical experience and observation.'"

Curtis proposed among other things, to teach his pupils something about English composition; and the authors of the book before us, for once, agree with the learned professor as to the propriety of such a course:

"From the above circular, it will appear that he was not only going to teach medical science, but 'English composition,' thinking,

no doubt, from the qualifications of the knight of steam who made out the following bill, which we take from the Recorder, that his students would stand in much need of this kind of knowledge:

Mr ——— to doctur ——— deTTur to a steeming
yewer wif 50 sense.
giving Huldy a Doas of No 1 25 sense."

It is a grief to learn that all this magnificence vanished into thin air:

"Neither the composition, literary, or ladies' department, have ever been filled, although the Professor, during the time we were with him, established several new departments not generally found in medical institutions. We had, for example, a chair established for teaching music, astronomy, and last, but not least, one to teach the authenticity of the word of God. All these, to make amends for the non-fulfilment of the other promises, were admirably filled, by the faculty, consisting of 'A. Curtis, M. D.'"

After having our expectations greatly excited by the bold promises of this "reformer," the following picture, as the sequel, is truly a cold bath:

"In this circular he says, 'We shall venture on a *heavy* expense, this winter, for the purpose of accommodating the friends of medical revolution;' also, that 'we have been informed that we shall be honored with the presence of several M. D's.' Under the influences of these promises held out, we repaired to Columbus, Ohio. But so far from finding things furnished by heavy expenses, and the M. D's. whose presence was to honor us, we found the boy and small room for the infirmary, the loft of an old frame building for a college, the electrical machine for the chemical apparatus, with the fragments of a skeleton, from which to acquire a knowledge of anatomy, and A. Curtis as the sole professor and grand sachem in that infamous temple of cupidity. His one or two assistant lecturers did not appear. However, near the close of the session, a brother of the professor appeared among us, and lectured, a few times, on surgery and obstetrics."

Those who are familiar with the history of mesmerism and

neurology in this city, will remember when the event, spoken of below, occurred. Perhaps the most extraordinary compound formed during the present century, is that of *steam* and *neurology*, which according to modern nomenclature, would read thus:—"*Botanico-Medico-Neurologico-American Institute.*" We suppose this name would have killed all the *ladies*, had their department been in operation. But to the extract:

"About the time the 'Botanico' took the name of the 'American Medical Institute,' we recollect of seeing a flaming advertisement in the Recorder, in relation to the college, and saying that a certain Dr. Buchanan was engaged as one of the Professors. This, we think, was about the time that the 'President,' (who still continues to assert that he has 'never changed his principles, or mode of operation for the cure of disease,') was floundering in the mysticisms of Neurology, so that the pages of the same old faithful Recorder were groaning under the weight of experiments and cures, said to have been performed by this new ignus-fatuus of this 'never changing' disciple of steam and lobelia. But since Mr. Cox (the subject of some of the above experiments) confessed that he had been hoaxing the 'Professor,' and the great Neuro-humbologist, Buchanan, thought he could act a more conspicuous part in some other corner of the great vineyard of humbuggery, and withdrew from the 'American Medical,' we find the 'Professor' again begirt about with his original armor, (vanity) and doing battle manfully in the cause of steam and lobelia, while the good old monotony of 'My wife was sick,' etc., in the Recorder, is seldom interrupted by the relation of the Cox, Buchanan, or any other Neurological experiments.

On the subject of the ignorance of botanico-medical *reformers*, we find among other things the following:

"It can scarce be credited, yet it is a solemn fact, that Curtis, and his host of ignorant proselytes asserted that bilious, congestive, and all other forms of fever could be cured without the intervention of cathartics. Many, very many of them believe it up to this hour, when in fact, they do not know one form of fever from another. One practitioner, we know, lost nine cases of congestive fever in one fall,

which was all he had, and then, in the ignorance or knavishness of his heart, pronounced them all phrenites, (inflammation of the brain.) Curtis advised this course, when he openly acknowledges he never treated a case of congestive fever, and on page 403, volume 4, of his Recorder, requests some one of his correspondents to send him word how they treat it.

"Yet on page 148 of the same volume, we find a case of this fever reported, in which the treatment, as reported, was their No. 3, an astringent, as before stated, cayenne by the mouth and in injections, *rhubarb* and *quinine*. The only objection to this process which the Professor raises, is to the rhubarb and quinine objecting to the last, because he says it is a 'MINERAL.'"

We have here some new ideas for the pathological anatomist; it shows the hand of a *genius*:

"In the Recorder, volume 4, page 348, we find the following answer to a correspondent, who said his patient had discharged something from his bowels:

"The ribbons are the mucus coat of the alimentary tube, which has been killed by poisonous medicine, sometimes by cold. The hot medicines excite the living coats to action. This detaches them from the dead one, which comes off in strips.

"Also, in volume 6, page 246, the following, in answer to another coadjutor, who said *his* patient 'had discharged something like a snake:'

"Can't see so far off, and after the lapse of so long a time, whether it was a snake, or the mucus membrane of the bowels, killed by medical poisons, and brought away by good medicines. Have seen such symptoms as you describe, from the latter cause, and seen the membrane come off in strips a span long, and nearly whole, much resembling a snake skin wanting the scales."

We find the same scintellations of genius that brought fourth the preceding gem, enlightening, also, the department of midwifery. The author of the sentiment found below, has, we believe, written a book on obstetrics, and therefore he is good authority. We commend it

to the notice of our friends Prof. Wright and Dr. Thelkeld, as it may be of service to them in their future lectures.

"On page 50, in speaking of presentations we find the following:

"*Breach Presentation.* — My friend, Dr. Tibbits, of Cincinnati, was called to 'a difficult case.' Breach presentation. He endeavored to bring down the feet, but found it impracticable without giving pain, and even the risk of doing injury. Not considering himself authorized to thwart the manifest resolution of nature, he contented himself with helping her in her own way. He gave her lobelia and its helpmates and she soon rid herself of a heavy burden, breach foremost, legs and knees on the abdomen! Thus we see that Botanic physicians find little difficulty in managing those difficult presentations that frighten others so much."

We close this notice with one more extract; it relates to the condition of the Botanico, now, which is held in the Bazaar, a building erected by the famous Mrs. Trollope.

"In relation to the College at present, we have been told by those who *know*, that the President fills the most of the Chairs at this time himself, as he was wont to do in days gone by, having but one assistant. That but few subjects for dissection are procured, though Curtis teaches now that anatomy is essential to a physician. On the subject of midwifery no lectures had been delivered the present session up to the first of February. As to the infirmary, to demonstrate the practice, but one patient we are told has been in it during this session. From these facts, we conclude that the Botanico-Medical College is about as full of deception as it was in 1837-8, notwithstanding the President has procured Mrs. Trollope's great Bazaar for the college buildings. The President should send for Madame Trollope, to fill the Chair in the Ladies' Department; she no doubt would honor it."

MISCELLANEOUS SELECTIONS AND INTELLIGENCE.

1. *Results of Revaccination.*—Since real and modified small-pox have been prevailing for some months in our valley, the following reports from other countries are certainly interesting, as they prove the usefulness and necessity of revaccination.

Dr. Meyer, Phyician to the Staff, in the Grand Dutchy of Baden, states in the "Annalen der Staatsarzneikunde von Schneider, Schürmayer und Hergt, 1842, No. 1, because vaccination, according to experience, does not give sufficient protection against small-pox for the whole life, and the ages of from fourteen to thirty years are principally susceptible of the contagion, the Minister of the Military and War Department of the Grand Duchy of Baden ordered, in the year 1840, the whole army to be revaccinated with matter from primitively generated cow-pox of entirely healthy children and by means of a considerable number (twenty) of stitches, only such persons being exempt, that had been revaccinated or were above thirty-six years of age. Secondary or revaccination lymph was allowed to be taken only where phimitive lymph could not any more be obtained. The result was the following:—

Of 1288 soldiers, revaccinated with primitive matter,		
genuine pustules appeared, and had a regular course in	314	persons.
Pustules with an irregular course appeared in	397	men.
Revaccination remained without success in -	577	"
Of 1882 soldiers, revaccinated with revaccination matter,		
genuine pustules appeared and had a normal course in	521	"
Pustules with an irregular course appeared on -	821	"
Revaccination did not take in - - -	540	"

Hence, the result was, that the fourth part of the revaccinated soldiers had genuine pustules containing lymph fit to revaccinate with, from which the usefulness and necessity of revaccination becomes evident. It also appears from this, that the revaccinated persons had rather more susceptibility for revaccination-lymph than for primitive matter.—Five cases of varioloid appeared during the year, none of which proved fatal.

Dr. Baucher revaccinated, in the Royal College at Versailles, 109 pupils of between 14 and 15 years of age, all of which had certificates of having been vaccinated, and all, with the exception of 15, had the distinct marks of it on their arm; a few had once been revaccinated. Dr. B. made three stitches upon each arm. The result, after five days, was the following: —

6 pupils showed no reaction;

27 pupils had all the symptoms of genuine vaccine: with some, the inflammatory reaction was violent;

25 pupils had an eruption, keeping the middle, between genuine and spurious vaccine, characterized by a more rapid course and a conical form of the pustules.

51 pupils showed the simple spurious vaccine, in the period of desiccation.

The genuine pustules were reexamined two days afterwards, then found well developed and in a fine condition.—[Zeitschrift fur die gesammte Medizin, November, 1842.

Dr. Solbrig, in Bavaria, revaccinated, within two months, 230 persons; the result was as follows: —

	Perf. success.	Imperf. do.	Without do.	Whole No.
Revaccinated under 12 years of age,	11	15	15	41
" from 13 to 15 years of age,	28	7	7	42
" " 16 to 20 " "	30	5	5	40
" " 21 to 25 " "	24	6	11	41
" " 26 to 30 " "	13	2	10	25
" " 31 to 40 " "	20	7	14	41

[Correspondenzblatt leayer. aterzte, 1842, p. 31.]

Gaultier de Claubry reported to the French Academy, April 26th, 1842, on vaccination for the year 1840: —

Of 836,789 children born in that year, 525,509 became vaccinated, that is, five-eighths of the whole number. Of 45,060 children, vaccination proved successful with 44,179; without success with 881. In several departments, 14,470 individuals were taken with real small-pox, 1668 of whom died, and 1390 remained deformed and feeble. 24 cases of second attack of genuine small-pox became known, 3 of which proved fatal.—The greatest number of vaccinated

persons remained free of small-pox. A few cases of varioloid occurred, but their course was mild and of short duration. Of 406 vaccinated individuals, that were taken with the disease only 4 died. Revaccination was performed in 2214 cases, 1704 without success, 227 with spurious vaccine, 270 had normal pustules; 3 persons successfully revaccinated were yet taken with varioloid.—[Haeler's Repert., vi, 6. F. R.

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2. *Cauterization of the Wound—the most efficacious means of preventing the occurrence of Hydrophobia.*—M. Dupey relates to the Academy of Medicine, the history of a case where a person bitten by a mad dog escaped hydrophobia by having the wound freely cauterized. At the same meeting, was related the fact, that, at Martinique, eighteen individuals were bitten by mad dogs durlng one year, that seventeen of these had their wounds freely cauterized and did not afterwards suffer, but that the eighteenth, who did not submit to this operation, was seized with hydrophobia.—[Med. and Surg. Jour, from Journal de Pharmacie, and Edin. Med. Jour.

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3. *Neuralgia of the Urethra.*—A woman, thirty-two years of age, mother of four children, suffered for eight months from pain at the lower part of the abdomen, with scalding on making water, and a constant sense of titillation at the orifice of the meatus. The pain became so severe as to prevent the patient from sleeping. The bladder was examined but no signs of calculus found. Various remedies were tried without effect. Two issues, with the Vienna caustic, were now made over the hypogastric region. The patient had tepid baths, containing two drachms of the sulphate of potass, and some pills composed of hyosciamus and extract of lettucc. This mode of treatment effected a cure.—[Med. Exam. from Bordeaux Journal.

THE WESTERN LANCET.

CINCINNATI, MARCH, 1844.

SUMMER LECTURES.

We are gratified to learn, that a summer school of medicine has been organized in Louisville, Ky., and that regular lectures will be delivered during the coming spring and fall. The institution is styled the "Louisville Summer School of Medicine;" and lectures will be delivered during April, May, and June, as the spring term, and September, and October in the fall, with a recess in July and August.

Some doubts have been expressed in relation to the success of summer lectures in the West, notwithstanding they have been so well received in Philadelphia for many years past. We have never doubted however, that the profession here would place a just estimate on efforts to supply an obvious deficiency in the means of medical instruction; and that lectures, properly arranged, to fill up the interval between the winter sessions, wonld prove highly beneficial to the industrious student. We must express peculiar gratification, therefore, to find these opinions which have been practically tested in Cincinnati for the last two years, confirmed, to some extent, by the establishment of a similar institution in Louisville. And we are pleased to observe, moreover, that the name selected, and the months in which to lecture, and those again for a recess, and, still further, the price of tickets, have all received a similar confirmation. This is the more gratifying, as the coincidence seems to be entirely accidental, because we have no right to infer that our friends of Louisville ever heard of the Cincinnati school, as no account of it has appeared in their Medical Journal.

We sincerely wish the "Louisvile Summer School of Medicine" success, and, therefore, advise medical students of that region to avail

themselves of the excellent opportunity thus afforded to advance their studies.

COMMERCIAL HOSPITAL OF CINCINNATI.—The Report of the Township Trustees to the Legislature of Ohio, exhibits the Commercial Hospital and Lunatic Asylum, located at Cincinnati, in a prosperous condition. The following summary will show the number of cases treated from January 1st., 1843, to January 1st., 1844.

MEDICAL DEPARTMENT.

Number admitted,	622
Discharged,	482
Died,	91
Remain.	47

SURGICAL DEPARTMENT.

Admitted,	268
Discharged,	215
Died,	4
Remain.	48

OBSTETRICAL DEPARTMENT.

Births,	24
Whole number of females.	108

LUNATIC ASYLUM.

Number remaining Jan. 1st., 1843,	48	87
Admitted since " "	39	
Discharged of the whole number,		34
Taken to the Lunatic Asylum at Columbus,		4
Taken to Ayslum at Lexington,		1
Died,		2
Remaining,		46
		87

The Lunatic Asylum connected with the Hospital, was originally designed as a place of temporary confinement for the insane, until they could be removed to Columbus; but in consequence of the crowded state of the latter institution, patients were compelled to remain so long in Cincinnati, as to preclude a hope of recovery, if not treated with a view to a final cure upon the first entry. The attention of the medical attendants has, therefore, been directed to this point, and the result, as given below, is highly favorabte. Dr. Davis, the resident

physician for the last year, gave his attention to this subject, and with commendable zeal continued his exertions throughout the year.

"Patients in the Asylum within the year, whose insanity was not more than about one year's duration,—males 17, females, 5.

"Persons in the Asylum within the year, whose insanity was of more than about one year's duration, and most of whom have been in the house for several years,—males, 38; females 20.

"Of whom 13 were discharged recovered; 14 discharged not recovered; 5 taken to other Lunatic Asylums; 2 died, and 46 remaining January 1, 1844.

"It will be perceived by the above that, of all the cases of insanity in the Asylum within the year, only 22 were recent cases, or such that there was any probability of their being curable. Of these, were taken to other Asylums, as is shown above, 5; taken out by their friends, each of whom was improved, 3; leaving 14. Of this number, 13 have been discharged recovered, and only one remains."

Paris' Pharmacologia.—A new and beautiful edition of this valuable work, edited by Charles A. Lee, M. D., has recently been issued by Messrs. Harper and Brothers, New York. The present edition is far superior to any of its predecessors; and as the popularity of the work has heretofore been almost unprecedented, we may readily conclude, that none of its interest will be lost in the present improved form. So rapid is the progress of medical science, and so many new facts are constantly accumulating, that the author has found it expedient to remodel the entire work, for the purpose of adapting it to the present improved state of medical science. The American editor, Dr. Lee, has added considerable valuable matter in the form of notes, and we may now regard the *Pharmacologia* as one of the very best works of the kind in our language.

Catalogues and Circulars.—The *Medical Department of Transylvania University* exhibits a catalogue, for 1843—4, of 214 pupils, of whom there were from Kentucky, 109; Tennessee, 32; Alabama, 25; S. Carolina, 11; Mississippi, 8; Missouri, 8; Ohio, 5;

Georgia, 3; Indiana, 3; Virginia, 2; Louisiana, 2; Arkansas, 2; New York, 1; Texas, 1; Scotland, 1; Mexico, 1. The degree of *Doctor of Medicine* was conferred on 59 candidates.

The catalogue of the *Medical Institute of Louisville*, 1843—4, contains the names of 242 pupils, from the following states:—Kentucky, 77; Tennessee, 48; Alabama, 37; Mississippi, 37; Indiana, 11; Missouri, 8; Ohio, 7; Illinois, 6; Virginia, 2; Georgia, 2; Arkansas, 2; Pennsylvania, 1; Texas, 1; Louisiana, 1; New Jersey, 1. Of this class, 47 received the degree of *Doctor of Medicine.* The *Honorary Degree* was conferred on SILAS AMES, of Montgomery, Alabama, and CHESTER G. BALLARD, of Greencastle, Indiana. In the same institution, the chairs of Theory and Practice, and Pathological Anatomy, have been united under the title of *Pathology and Practice of Medicine*; Dr. Cook, the former professor of Theory and Practice, having resigned.

SMALL-POX.—To allay the apprehensions of persons at a distance, who may wish to visit Cincinnati, we would state, that but few cases of small-pox are believed to be now in the city. The Board of Health having lost sight of this subject, we have no certain data from which to form an estimate, but the general impression is, that the disease has almost entirely subsided.

ANATOMICAL ATLAS BY DRS. SMITH AND HORNER.—Part II of this valuable publication has been received, and we are gratified to percieve, that it fully sustains the high expectations created by the splendid appearance of the first number. Part II contains 91 figures, illustrating the Dermoid and Muscular Systems.

It may be obtained of Messrs. Desilver & Burr, 112, Main St.

CINCINNATI DISPENSARY.—The Managers of this institution have published the following summary of the cases treated, and persons vaccinated:—

"During the eighteen months of its existence it has afforded as-

sistance and relief to a large number of sufferers, as will be seen from the following statement copied from the record of the institution, up to March 7, 1844.

Thoracic diseases treated	278
Abdominal do. "	277
Cutaneous do. "	55
Female do. "	105
Rheumatic do. "	38
Fevers "	183
Surgical affections "	174
Labor "	56
Small pox "	25
Miscellaneous diseases treated	420
	1612
Vaccinations by order of the city	1712
Total	3324

Epidemic Erysipelas.—This disease, the famous "black tongue," has at length reached this city. In Delhi Township, a few miles from the city, the disease has prevailed in its most fatal form, but what per cent. of the severe cases died, we are not informed.

In this city, but few case have thus far occurred, and we have not heard of more than three or four that proved fatal, of these, one contracted the disease in the township of Delhi. Epidemics are usually most violent in their onset; and if the same law is observed by erysipelas, we shall escape a severe or extensive invasion.

New Publications.—A new edition, (the fifth) of Dunglison's Physiology has been published, and also another edition (the fourth) of Dunglison's Medical Dictionary will soon be completed. A System of Operative Surgery, by Professor Pancoast, is also in preparation, and will appear soon. Our Philadelphia brethren seem determined that every thing useful in medical literature shall be brought before the profession in a speedy and durable manner; and the liberality and enterprising spirit of the publishers of that city, enables them to accomplish these praiseworthy objects.